The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 787.---Vol. XX.] LONDON, SATURDAY, SEPTEMBER 21, 1850. [Price 6d.

Stannaries of Cornwall.—In the Vice-Warden's Court.

TIPPET *v.* CARVOSSO.

IN RE WHEAL HENRY MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to an Order, or Decree, made in this cause, and bearing date the 28th day of August last, a PUBLIC AUCTION will be HOLDEN at Pearce's Royal Hotel, TRURO, on Thursday, the 26th day of Sept. inst., at Four o'clock in the afternoon, for SELLING TWO (216ths) PARTS or SHARES of the said Defendant, of and in the said MINE; and the like PARTS and SHARES of and in the ORES, HALVANS, MACHINERY, and MATERIALS, and other EFFECTS upon and belonging to the said mine.

For further information application may be made to Messrs. Carlyon and Paul, solicitors, Truro.—Dated Registrar's Office, Truro, Sept. 18, 1850.

SHROPSHIRE.—VALUABLE FREEHOLD ESTATES AND MANORS, In the Parishes of CHIRBURY and HYSSINGTON, in the County of SALOP,

MR. THOMAS EDWARDS will SELL, BY AUCTION, at the Fox Inn, SHREWSBURY, on Thursday, the 26th day of September, 1850, in one or more lots, and subject to conditions to be then and there produced.

Sale to commence at Five o'clock.

IN THE PARISH OF CHIRBURY.

LOT I.—All that capital MESSUAGE, BUILDINGS, and LANDS, called KINTON FARM, containing 206A. 3R. 39P., or thereabouts, and now in the occupation of Mr. John Gittins, together with 536 acres of open COMMON LAND; and also the MANOR of MIDDLETON, and the several Royalties appertaining and belonging thereto, which extend over an area of 1247A. 3R. 33P., together with the MINES and MINERALS lying under the same, but subject to the existing lease to Messrs. Ward and Co., under part of the property.

Also, sundry SMALL TENEMENTS and LANDS, on and adjoining the before-mentioned commons, now or late in the several occupations of Thomas Whettel, Richard Lee, Thomas Montford, Joseph Whettel, James Nicholas, late John Rudge, John Humphreys, Thomas Clare, William Cross, and George Swaine, containing together 13A. 1R. 9P.; likewise that portion of a certain POOL OF WATER, which lies within the Manor of Middleton, and occupied by the White Grit Mining Company.

This lot forms a most desirable investment, either to the agriculturist or mineralogist. The farm lies within a ring fence (except one small close), and is capable of great improvement. It is bounded by the estates of the Earl of Powis and Sir Offley Penbury Wakeman, Bart., which are strictly preserved; also by those of George Pritchard, Robert Bridgeman More, and Edward Smith, Esqs.

The Grit Mines, which belong to R. B. More, Esq. (and which are now in full work), adjoin this lot—the steam-engine being within a few yards of the property, and a great quantity of lead ore is now being raised from the vein adjoining the boundary line, and which vein runs into this manor, and is the favoured point remarked upon by Sir Roderick Impey Murchison in his geological work of this part of Shropshire, where no doubt a great body of ore exists.

There is an excellent Rabbit Warren on Middleton-hill, and a great portion of the commons will do well for cultivation.

LOT II.—All that FARM and LANDS, called MIDDLETON, now in the occupation of Mr. Vincent Preece, containing 43A. 2R. 10P., or thereabouts; together with a newly-erected COTTAGE, with a CLOSE of LAND, held by John Gittins.—Also, a FIELD of LAND, at present occupied with the sheepwalk, and open thereto, containing 3A. 3R. 3P., together with TWO other TENEMENTS, in Middleton Batch, in the respective occupations of John Mollings and Richard Embrey, containing 5A. 0R. 2P., or thereabouts.

This lot is principally surrounded by the estates of George Pritchard, Esq.; it also abuts upon Messrs. Shuker and Knight's lands.

LOT III.—All that MESSUAGE, BUILDINGS, and LANDS, near Medge's Fold, now in the occupation of Ann Lewis, containing 3A. 1R. 16P.

LOT IV.—All that MESSUAGE, BUILDINGS, and LANDS, called MEDGE'S FOLD, in the occupation of John Price, containing 3A. 2R. 32P., or thereabouts.

LOT V.—All that FARM and LANDS, called STAPELEY, in the occupation of Mrs. Diana Montford, containing 14A. 3R. 12P., or thereabouts; also, all those TWO MESSUAGES, BUILDINGS, and LANDS adjoining, in the respective occupations of Robert Pugh and John Edwards, containing together 2A. 3R. 28P., or thereabouts.

LOT VI.—All that FARM, BUILDINGS, and LANDS, called STAPELEY, in the occupation of Mr. Aaron Evans, containing 17A. 1R. 25P., or thereabouts.

LOT VII.—All those TWO PIECES, or PARCELS, of LAND, adjoining Stapely Farm, and now occupied by Jeremiah Francis, containing 3R. 28P.

The last-named five lots are desirable investments for the small capitalist, or persons wishing to secure votes for the southern division of the county of Salop.

IN HYSSINGTON PARISH.

LOT VIII.—All that MESSUAGE, BUILDINGS, and LAND, called the APPLETREE TENEMENT, with the LAND lately added thereto, and now in the occupation of John Beamond, containing together 2A. 2R. 4P.; also all that other MESSUAGE and CLOSE of LAND adjoining the same, in the occupation of Edward Wellings.

This lot is near the Grit Mines, and adjoins the turnpike-road leading from Bishop's Castle to Shrewsbury, and is a desirable spot for a small inn or shop.

LOT IX.—The MANOR or LORDSHIP of MUCKLEWICK, extending over an area of 534A. 0R. 14P., and the several royalties appertaining and belonging thereto, with the MINES and MINERALS lying under the same, but subject to the existing lease to Messrs. Ward and Co., of the mines under part of the property; together with the manorial allotment about being made and set out under the Hyssington and Mucklewick Inclosure Act.

The VEIN OF ORE, which is now worked by the Grit and Gravel Mining Company, crosses these commons, which lie only about a quarter of a mile from the engine, and the turnpike-road from Bishop's Castle to Shrewsbury passes over the said commons.

Plans and particulars may be had by application to Messrs. Robinson and Ouvry, solicitors, 13, Tokenhouse-yard, London; Messrs. Mickleburgh and Son, land agents, Montgomery; Thomas Norton, Esq., solicitor, or to Mr. Thomas Edwards, the auctioneer, both of Shrewsbury.

EAST OF SCOTLAND MALLEABLE IRON-WORKS.—TO BE EXPOSED TO SALE, BY PUBLIC AUCTION, within the TOWN-HOUSE, DUNFERMLINE, on Wednesday, the 2d October next, at One o'clock afternoon, the EAST OF SCOTLAND MALLEABLE IRON-WORKS, at DUNFERMLINE, comprising—A STEAM-ENGINE, of 80-horse power, working the machinery, consisting of FORGE and 2 PUDDLE BAR TRAINS, of 16 inches diameter, HAMMER and PATENT SHINGLING MACHINE; also a 16-inch MERCHANT BAR or RAIL MILL, a 12-inch MILL, for ordinary sized merchant bars, and an 8-inch GUIDE MILL, 13 PUDDLING FURNACES, and 6 MILL FURNACES, the whole capable of producing 120 tons of bar-iron weekly.

A REFINERY STEAM-ENGINE, of 45-horse power, with blowing apparatus, complete, and two fires erected.

A complete SET of WORKSHOPS, containing a 20-horse power STEAM-ENGINE, driving a powerful ROLL TURNING LATHE, and blowing apparatus for smiths' fires.

A PUMPING and CLAY MILL STEAM-ENGINE, of 16-horse power, used for the manufacture of fire-brick and pumping water for supply of engines.

Also the ESTATE of TRANSY, consisting of about 107 imperial acres, with elegant MANSION-HOUSE and PLEASURE GROUNDS, situate about half a mile to the east of the town of Dunfermline.

Should the above not be disposed of in one lot, the works will be put up separately and if sold, the estate will also be exposed separately.

The purchaser of the works will have it in his option to take all the necessary tools, loose machinery, and stocks of different kinds, at a valuation.

There will also BE SOLD, a STEAM-ENGINE, of 80-horse power, intended to drive the rolling mills, apart from the forges, with strong cast-iron framing and relative machinery.

For further particulars application may be made to Mr. James Inglis, the Chairman of the Board of Management; or to Johnstone, Russell, and Craig, writers, in Dunfermline, in whose hands may be seen the title deeds of the lands and articles of roup.

Dunfermline, Sept. 4, 1850.

VALUABLE MINING PROPERTY FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, WHEAL AYR MINE, in SAINT IVES, in the county of CORNWALL, with all the MATERIALS thereon, consisting of a 25-inch STEAM-ENGINE, 90 fathoms of 7 and 6-inch pitwork, capstan and shears, balance and other bobs, horse-whim, the usual requisites of a smiths' shop, counting-house, and other offices, with the furniture, together with the setts, which are held on favourable terms. The mine is immediately east of the St. Ives Consols Mine, on the same range of lodes, and adjoining and parallel with Wheal Trenwith.

Tenders for the whole property will be received by Capt. Treweeke, St. Ives, on or before the 30th inst.; in the meantime, for inspection, apply to the agent on the mine, and for further particulars to Capt. Treweeke.

Dated St. Ives, Sept. 16, 1850.

FOR SALE, BY PRIVATE BARGAIN,

THE LONDON VULCAN FOUNDRY AND ENGINEERING WORKS, AT PORT-DUNDAS, GLASGOW.

These WORKS are at present in OPERATION, and are most advantageously situated on the banks of the GREAT CANAL, communicating at once with the Forth on the east, and the Clyde on the west, and are capable of doing a large amount of business.

The BUILDINGS and PLANT are most substantial, well-arranged, and in every respect complete, and in the best working condition.

May be seen on Tuesdays and Fridays, between the hours of Ten and Three o'clock P.M., on application to Mr. Alexander Balderston, 18, Renfield-street, Glasgow, who will furnish all other particulars, and treat with intending purchasers.

Glasgow, Sept. 6, 1850.

STEAM-ENGINE FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, a 32-inch cylinder STAMPING ENGINE, single acting, 9-feet stroke in cylinder, with steam case, boiler, about 11 tons, and axles and frames for 72 heads.—Applications to be made to Hocking and Loam, engineers, Redruth.

Dated June 26, 1850.

BRITANNIA BRIDGE.

Most IMPORTANT and EXTENSIVE SALE of the whole of the MATERIALS, MACHINERY, and PLANT, used in the construction, floating, and erection, of the BRITANNIA TUBES, consisting of timber, planks, boards, and scantling, iron and wood pontoons, capstans, chains, cables, ropes, iron blocks and sheaves, hydraulic presses, steam-engines, suspension chain, fire-engines, twelve boats, jib cranes, purchase crabs, scrap-iron, bolts and dogs, smiths' tools, hearths, bellows, anvils and vices, taps and dies, tram-way, trollies, anchors, pumps, life buoys, oil, lead, limestone, Penmaen Mawr sets, Buckley Mountain fire-bricks, &c., &c.

MESSRS. CHURTON have the honour to announce that they have been directed by the Chester and Holyhead Railway Company to make all requisite preparations for an ENORMOUS SALE BY AUCTION, at the Works, adjoining the Britannia-bridge, BANGOR, CARNARVONSHIRE, early in the month of November next, 1850 (of which due notice will be shortly published), of the

WHOLE MATERIALS, MACHINERY, AND PLANT,

Which will be arranged, in lots to suit purchasers, unless all or any portion may be previously disposed of by private tender—viz.:

The whole of the WELL-SEASONED TIMBER, now standing as the two large platforms upon which the land tubes have been built, consisting of Baltic, Yellow, Red, and Pitch Pine, in half and whole logs, containing respectively about 29,000 and 57,000 cubic feet. The timber is mostly of large dimensions, and being very little injured by its erection, is well adapted for building or general purposes. Also, a large quantity of various sized TIMBER, PLANKS, and SCANTLING, in lots along the shore.

Six large square-built WOODEN PONTOONS, decked 100 feet by 30 feet, each containing about 4500 feet of timber, and from 8 to 10 tons of wrought-iron, bolts, straps, &c.

Two handsome and substantially-built IRON PONTOONS, by Mare, of London, with flush decks, each 100 ft. by 31 ft., 10 ft. in depth, and drawing 3 ft. 4 in. of water. They are divided into nine compartments by iron bulk-heads and double timber framing, are in excellent condition, fitted with pumps, and were expressly designed for floating landing stages.

SIX POWERFUL CAPSTANS, with 3-ft. barrels, iron drum-heads, and pall plates, each with ten 18-feet oak bars; also four of smaller dimensions, with eight bars each. They are nearly new, and of the most approved construction, and from their great speed and power are well adapted for large dock or wharf purposes.

A very extensive assortment, consisting of about ONE HUNDRED TONS of white and tarred HEMP and MANILLA SHROUD and HAWSER-LAID ROPES, of all sizes, from 13 inches downwards. They are of the finest materials, and have been manufactured expressly for the work by the best makers in London and Liverpool, and the majority of them have only been used twice.

A great variety of CHAINS and CABLES, of various sizes, from 1¼ inch downwards, and of "*best best*" quality. Also a quantity of slings, buckling chains, crane chains, rings, hooks, and shackles.

A large number of very superior and highly-finished IRON BLOCKS and SHEAVES, of various sizes, brass bushed, suitable for 8, 9, and 10-inch ropes, expressly manufactured for the works, together with a quantity of WOOD BLOCKS and SHEAVES.

One 20-inch and two 18-inch HYDRAULIC PRESSES, each with 6 feet stroke. They have raised the tubes of the Conway and Britannia Bridges, and can, therefore, be warranted sound.

Two compact and portable 20-horse power high-pressure STEAM-ENGINES, by Easton and Amos, with horizontal cylinders, 17-inch stroke, brass force pumps, &c., together with two most excellent TUBULAR BOILERS.

Large quantity of 6-feet link SUSPENSION CHAINS, also used in raising the tubes, each 7-inch by 1-inch section. They are manufactured of the finest scrap-iron, without any welds, upon Howard and Ravenhill's patent process, and are well adapted for a suspension bridge of from 100 to 150 feet span.

Two strongly made 12-ton JIB CRANES, with chains and gear complete; four very large SINGLE PURCHASE CRABS, with four handles and 18-inch barrels; and a variety of smaller double and single PURCHASE CRABS.

Two powerful double-action FIRE-ENGINES, by Rose, of Manchester, nearly new, with 7-inch pumps and their respective sets of hose, buckets, nozzles, fire helmets, dresses and belts, complete, in first-rate working condition.

Twelve well-built two, four, and six-oared BOATS and LIGHTERS, well found with all descriptions of tackle, adapted to carry from 5 to 18 tons each.

Several large timber-built WAREHOUSES, WORKSHOPS, SHEDS, STORE-ROOMS, OFFICES, &c., covered with slates, and now standing upon the works; they are admirably adapted for dwelling-houses, agricultural buildings, general warehouses, workshops, &c., &c.

A powerful and nearly new cast-iron FORCE PUMP, of a superior description, with 4-inch brass piston and 4-feet stroke, together with a quantity of turned and bored 4-inch cast-iron pipes, with knees and flange screws complete, in excellent working order.

About 400,000 of BUCKLEY MOUNTAIN FIRE BRICKS, large quantity of PENMAEN MAWR SETS and LIMESTONES, together with large quantities of wrought and cast scrap-iron, screw bolts and dogs, tram-ways, trollies, anchors, pumps, ladders, wheelbarrows, buckets, lanthorns, marking irons, smiths' tools of superior quality, bellows, hearths, anvils and vices, taps and dies, life buoys, boiler and hot-water pipes, set and screw jacks, drills, rimers, braces, cross-cut saws, large cast-iron rope stoppers, old and new lead, steel and spikes, plate-iron, bar-iron, old files, picks, shovels, crow-bars, grindstones, duck lamps, oil cans, ale cans, cooking utensils, speaking trumpets, 50 gallons of torch oil, watchmen's telltales, shear legs, water tanks, carpenters' benches, and an immense assortment of other effects, too numerous to mention.

N.B. The directors are willing to receive tenders for any portion of the above-described articles, which also may be disposed of by private contract, upon immediate application to Edwin Clarke, Esq., Britannia-bridge, Bangor, from whom any further information may be obtained, as also from Messrs. Churton, auctioneers, Chester.

Chester, September 11, 1850.

LOCOMOTIVE ENGINES—ON SALE.—SIX NEW LOCOMOTIVE PASSENGER ENGINES and TENDERS; particulars as follows: Outside cylinders 15 in. diameter, and 22 in. in stroke; driving wheels 6 feet diameter; leading and trailing wheels 3 feet 6 inches diameter. All the wheels entirely of wrought-iron. Strong copper fire-boxes, with 68 feet of heating surface, and 120 tubes, 10 feet 5 inches long, and 2 inches outside diameter. The tenders are made to hold 1000 gallons of water, with well constructed framing, all of wrought-iron, and are carried on six wheels, 3 feet 6 inches diameter, of wrought-iron, with cast-iron centres.

The whole of the workmanship is of the very best description, and the price very moderate.—For further particulars apply to the makers, Messrs. Benjamin Hick and Son, Soho Iron-Works, Bolton; or to Mr. Josiah Kearsley, at the office of Messrs. B. H. and Son, 1, New Broad-street, City, London.—July 25, 1850.

LONDON AND NORTH-WESTERN RAILWAY—STONE BLOCKS.—The LONDON AND NORTH-WESTERN RAILWAY COMPANY are prepared to RECEIVE TENDERS for the PURCHASE of the SURPLUS STONE BLOCKS stacked on various points of their line between Wolverton and London.

Specifications, showing the quantities lying at each point of the line, may be obtained on application to Mr. R. B. Dockray, engineer's office, Euston Station.

By order of the directors, C. E. STEWART, Secretary.

Office Euston Station, London, Sept. 14, 1850.

CALEDONIAN RAILWAY COMPANY.—Notice is hereby given, that the next HALF-YEARLY GENERAL MEETING of the shareholders of the CALEDONIAN RAILWAY COMPANY will be HELD at the Freemasons' Tavern, Great Queen-street, London, on Friday, the 27th day of Sept. current, at Twelve o'clock at noon precisely, in terms of the statute.

At this meeting it will be proposed to confirm the forfeiture of certain shares, and to direct the same to be sold or otherwise disposed of.

Also, to empower the Board of Directors to negociate and conclude arrangements with the several parties and companies having claims against the Caledonian Company of guaranteed or preferential dividends or interest, for the modification and reduction thereof, and for these purposes to meet with deputations duly authorised.

There will also be submitted the following motions, of which notices have been given—viz.:

To increase the number of directors to 13, and todetermine the order of rotation in which such increased number shall go out of office.

To appoint an auditor of the Company, in room of Mr. Douglas Campbell, who now holds office as one of the directors.

That the servants of the Company be rested on the Sabbath-day; and

That no work be done on the Caledonian Railway on the Sabbath.

The transfer books will be closed from the 14th inst. inclusive, until after the meeting

E. PLUNKETT, Chairman.

Company's Office, Glasgow, Sept. 9, 1850. J. W. CODDINGTON, Secretary.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

WANTED,—A PARTNER to JOIN a METAL BROKER.—A RESPECTABLE PARTY, with a knowledge of the IRON and METAL TRADE, and who has a Liverpool connection, would be preferred.

Address, by letter, "A. B.," care of Messrs. Willmer and Smith, news agents, Church-street, Liverpool.

SITUATION WANTED, by a WORKING ENGINEER, capable of attending and repairing Engines and Machinery: a moderate salary required, and good reference given.—Address "J. S.," 5, Upper John-street, Golden-square.

TO BE LEASED, a most promising LEAD ORE MINE, with an excellent PLANT thereon, situate in the midst of a rich mining district in Flintshire.—Apply to Mr. Thomas Jenkins, Plas-y-ward, Ruthin.

TO BE LET, a QUARRY of excellent BUILDING STONE, situate within 1½ mile from the Railway Station, Mold.—William Jones, of Black Brook, near Mold, will show the Quarry; and for further particulars apply to Mr. Thos. Jenkins, Plas-y-ward, Ruthin.

MORTGAGE.—WANTED, the sum of EIGHT THOUSAND POUNDS, on MORTGAGE of one of the most valuable COAL PROPERTIES in the Kingdom—held on a long lease, upon most favourable terms. To Principals and their Solicitors the most ample and satisfactory details will be furnished, on application to "S. B. J.," 10, North-place, Gray's Inn-lane, London.

MONEY.—SUMS from THREE HUNDRED to FIFTEEN THOUSAND POUNDS to be ADVANCED on MORTGAGE of FREEHOLD, LEASEHOLD, COPYHOLD, REVERSIONS, MONEY in the FUNDS, and on approved MINING and RAILWAY SHARES, and on DEBENTURES, and MONEY NEGOCIATIONS generally EFFECTED.—Apply to Mr. Dickinson, 2, Cannon-row, Parliament-st.

MINING.—Respectable MINING COMPANIES requiring OFFICES and MANAGEMENT, or PARTIES having MINES to BRING OUT, may have their views liberally met with on application to Mr. FENTON, No. 5, WHITE HART-COURT, LOMBARD-STREET, where mining business of every description is transacted. Some SHARES in that valuable dividend-paying MINE, the SPEARNE CONSOLS, are TO BE DISPOSED OF; also in the Pentire Glaze, South Caraden, Wheal Arthur, Wheal Zion, &c.

MINING OFFICES, No. 9, ST. MICHAEL'S-ALLEY CORNHILL, CITY (established 20 years).—WM. TRENERY begs respectfully to inform the Public that he is at all times in a position to BUY or SELL SHARES in most of the DIVIDEND-PAYING MINES; and being a native of Cornwall, he is always ready to give the best information respecting mining property in general.

MINING PROPERTY.—Mr. G. JENKIN PHILLIPPS, MINING AND GENERAL AGENT, CAMBORNE, has SHARES in several valuable MINES FOR SALE; amongst many others are the following: Wheal Tremayne, Wheal Tryphena, Wheal Agar, Hawke's Point, Wheal Elizabeth, West Frances, East Frances, Bell and Lanarth, Wheal Carpenter, Dolcoath, Camborne Consols, East Pool, Gustavus, Mary, South Wheal Basset, Stray Park, Tincroft, Tolcarne, West Seton.

N.B.—Mr. Phillipps is not a dealer on his own account, but for principals.—Constant communication from the most respectable mining agents in London; also agent to the Anchor Assurance Company.—Camborne, Sept. 16, 1850.

MINING PROPERTY.—Messrs. BROWN & CO., of No. 16, FENCHURCH-STREET, LONDON, transact EVERY DESCRIPTION of MINING PROPERTY, and have now on hand a FEW SHARES in one of the most valuable in Cornwall, being surrounded by Carn Brea, Wheal Buller, and other rich and dividend-paying Mines; and have also a few of the remaining Shares in Exmoor Wheal Eliza, Polgear and Lancarrow, and West Phœnix Mine.—Sept. 20, 1850.

MINING PROPERTY.—BUSINESS transacted in every description of MINING PROPERTY, SHARES BOUGHT and SOLD, ADVICE GIVEN to PARTIES as to INVESTMENT, ADVANCES of MONEY MADE on this DESCRIPTION of PROPERTY, Statistics given on Mines, and the earliest information obtained from the mineral districts.—Apply to DURRANT & CO., Mining Sharebrokers, 58, Lombard-street.

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND MINES FOR SALE, and which will give to the purchaser 17 to 25 per cent. for the outlay; amongst others are the following:—Wheal Margaret, Alfred Consols, Levant, Tremayne, Lewis, Treviskey, South Frances, South Basset, Trelawny, Mary Ann, Tincroft, Holmbush, Wheal Seton, Comfort, North Roskear, Stray Park, West Caradon, Devon Great Consols, Carn Brea, and North Pool—United Mexican, Cocaes, Alten, Copiapo, St. John del Rey, and Imperial Brazilian Mines.

MINING OFFICES—33, CLEMENT'S-LANE, LOMBARD-STREET.

MR. R. TRIPP, MINING AGENT, is instructed to BUY and SELL in most of the best DIVIDEND-PAYING MINES; also in NEW ONES, having present and prospective advantages, including—Devon Great Consols, Treviskey and Barrier, West Caradon, South Caradon, South Basset, North Basset, South Frances, Trelawny, Wellington, Alfred Consols, Wheal Tremayne, Russell, Lelant Consols, Wheal Penhale, Carthew Consols, &c.,—FOREIGN United Mexican, Linares, Santiago, &c. Mines.

Railway, Insurance, Bank, and other Securities, at market prices.

MINING AND SHARE OFFICES,

ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

MESSRS. MANUEL & CO., MINING AGENTS, are instructed to BUY and SELL in most of the dividend-paying MINES, including South Frances, South Basset, North Basset, Devon Great Consols, Wheal Seton, Carn Brea, South Caradon, Wheal Russell, Hawkmoor, Runnaford Coombe, Wheal Langford, and Tincroft.—Office, 42, Fish-street-hill, London.

MESSRS. BOXALL & CO., MINING SHARE DEALERS, 5, *CROSBY HALL CHAMBERS, BISHOPSGATE-STREET.*

MESSRS. WATSON & ENSOR, MINING AGENTS, 4, *TOKENHOUSE-YARD, LOTHBURY, LONDON.*

MESSRS. CREFT, FULLER, AND CO., MINING SHARE DEALERS, 1, *ROYAL EXCHANGE BUILDINGS.*

COPIAPO MINING COMPANY.—Notice is hereby given, that a DIVIDEND of EIGHT SHILLINGS per share will be PAID on the shares of this Company, at the office, 22, Austinfriars, on Monday, the 14th October next, and following days. The dividend warrants are required to be left at the office two days for examination.—Please call between the hours of Twelve and Two.

By order of the directors, ROBERT CLARK.

22, Austinfriars, August 14, 1850.

KINZIGTHAL MINING ASSOCIATION.—NOTICE OF CALL.—Notice is hereby given, that the Directors of the KINZIGTHAL MINING ASSOCIATION have this day made a CALL of FIVE SHILLINGS, or Three Florins, per share, and have appointed such call to be paid on or before Wednesday, 25th Sept. next, to their bankers.—LONDON: Messrs. Masterman, Peters, and Co.

STUTTGARDT: Messrs. Doertenbach and Co.

By the statutes of the Association, interest at the rate of 5 per cent. will be charged upon all sums in arrear after 25th Sept. next. By order of the Board,

GEO. COPELAND CAPPER, Secretary.

1, Adelaide-place, London-bridge, Sept., 1850.

TINCROFT MINING COMPANY—THIRTEENTH DIVIDEND.—Notice is hereby given, that a DIVIEEND of TEN SHILLINGS and SIXPENCE per share, being 7½ per cent. upon the paid-up capital of this company, will be PAID on Wednesday, the 16th day of October next, and succeeding Wednesdays, between the hours of Twelve and Three o'clock.—The certificates are required to be left at the office two clear days, in order to be examined and marked.

Salvador House, Sept. 19, 1850. P. STAINSBY, Managing Director.

TRELEIGH CONSOLIDATED MINING COMPANY.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders will be HELD at the offices, as under, on Wednesday, the 2d of October next, at Twelve for One o'clock precisely. WM. NICHOLSON, Secretary.

57, Old Broad-street, Sept. 12, 1850.

WHEAL MAY MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING will be HELD at the Rose and Crown Inn, 66, Old Broad-street, City, on Friday next, at Two o'clock P.M. precisely, for the purpose of opening the new Cost-book, and dividing the mine into 2500 shares, instead of 5000, as originally arranged, and also to make arrangements for conducting the mine strictly in accordance with the "Cost-book Principle."

The above arrangement having been decided on by holders of more than three-fourths of the shares issued, at a meeting held this day, it is requested that all persons holding shares will attend, and sign the Cost-book for whatever shares they may respectively hold in the above mine.—Sept. 20, 1850. HENRY PEET, Secretary.

NOTICE.—All PERSONS having any CLAIMS or DEMANDS on the WHEAL ANDERTON MINING COMPANY are requested to forward particulars of their accounts, on or before the 29th day of Sept. inst., to either of the undersigned, in order that they may be audited before the mine is transferred to the purchaser, after which no accounts will be paid which were not previously delivered.

(Signed) JAMES CARPENTER, Purser of Wheal Anderton Mine, near Tavistock.

Dated Totnes, Sept. 9, 1850. EDWARDS & KELLOCK, Solicitors, Totnes.

THE VICTORIA COLLIERY.—This colliery is situated at Rainford, a short distance from Liverpool, and is quite a model for its size; it covers about 60 acres, the shaft less than 100 yards deep, the ventilation perfect, and hitherto not an accident fatal to human life has taken place. There are guides all down the shaft to steady the wicker baskets, in which the coal is obtained; and the method by which the coal is taken from the pit's mouth to the depôt of Messrs. Mackay and Co., the owners in Liverpool, prevents injury by breakage, and is a great saving in economy and time. Waggons are placed at the pit's mouth, with two boxes, holding 3 tons each. When a sufficient number are loaded, an engine takes them to the depôt. Here a crane hoists out a box at a time; and, on raising a lever, the bottom opens, and the coals are safely deposited on the heap. The coals can thus be placed on board vessels in the docks in best condition at 7s. 6d. per ton.

WATERFORD AND KILKENNY RAILWAY COMPANY.—A special meeting of shareholders was held at the London Tavern on Thursday last, for the purpose of considering the propriety of issuing 40,000 new shares, of 5*l.* each, bearing a preferential dividend of 6 per cent. per annum, redeemable after five years. A report was read, which stated it to be desirable to complete the extension to Knockwilliam, simultaneously with the completion of the Irish South-Eastern to Lyrach; the estimate for completing the line to Waterford was 160,000*l.* The Government was expected to advance 40,000*l.*; the contractors would take one-third of the 40,000 shares, leaving only 120,000*l.* necessary to be raised. After some conversation, a resolution was passed for issuing the shares, and the meeting broke up.

WEST CORNWALL RAILWAY.—We are glad to learn that the works of this line will be commenced in about a fortnight or three weeks from this time. During the past few days several of the contractors for the extensive works on railways in and about the metropolis and midland counties have been in Penzance, on the subject of the West Cornwall Railway, and in a few days tenders for the works thereof will be received by the company, almost immediately after which, the tender accepted will be made known, and operations forthwith begun. On Monday, ten of the contractors dined at the Union Hotel.—*Penzance Jour.*

LONDON AND NORTH-WESTERN.—The directors and Government inspector have been over the further portion of this company's Buckinghamshire line to Islip, and it will be opened on the 23rd instant. The electric telegraph is now being constructed along it.

According to a Vienna paper, the *Austria*, the railroads of the Austrian empire now embrace an extent of 290 Austrian miles (about 1400 English miles). The traffic of these lines in 1849 was 1,236,361 passengers, and 17,880,800 quintals of merchandise. Other lines are in course of construction. The same journal mentions that the State has just adopted an invention which will give the power of ascertaining the exact spot where the wire of a subterranean electric telegraph may have broken.

EXTRAORDINARY ACTION.—The case of M'Evoy *v.* the Atlas Insurance Company was brought to a close on Monday evening, in the Nisi Prius Court, Dublin, before the Lord Chief Baron, whose charge occupied six days. Altogether the case occupied 31 days—seven days in Manchester, where a commission sat for the examination of witnesses, and 24 in Dublin. One of the jurors died, and, by consent, it was tried by 11 jurors. One of the counsel was seriously attacked by illness, and the chief baron was so ill that the case had to be adjourned. There was a verdict for the plaintiff for 743*l.* over and above the sum lodged in court (1000*l.*), and 6d. costs. Exceptions were taken to the judge's charge. The agent of the plaintiff handed each of the jury a draft for 25 guineas, making in the whole 275 guineas.

THE MOST SERIOUS CASES OF DROPSY CURED BY HOLLOWAY'S PILLS.—The causes of dropsy are various, but it generally arises from an obstruction to the free circulation of the blood through the system, to remedy this there is nothing so effective as Holloway's Pills, as they purify the blood and strengthen the constitution, and thereby gradually diminish the collected fluid, and if persevered in till the cure is complete it is prevented from accumulating again. Many persons that have suffered from dropsy can testify to the efficacy of this medicine, especially females at the turn of life, who at that period are more particularly predisposed to this insidious disease.—Sold by all druggists, and at Professor Holloway's Establishment, 244, Strand, London.

CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of August is 27—the quantity of coals consumed being 2540 tons, lifting, in the aggregate, 23,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 51,000,000lbs. lifted 1 foot high by the consumption of a bushel of coal.—The following have exceeded the average:—

Mines.	Engines.	Length of stroke	Load in pounds.	Load per sq. inch on pist.	Strokes per min.	Consump. of coal in bus.	Millions lifted 1 foot by consump. of 1 bush.cos	Lifted 1 foot by 1c. of coal.
Great Work..	Leed's 60-in. ...	9·0	55,343	15·2	7·1	2544	54·8	65
East W. Crofty	Trevenson's 80	10·33	82,333	12·2	5·2	2789	60·3	72
Poldice	Sims's 85-inch	10·33	84,120	10·3	8·2	4512	56·6	68
S.Wh. Frances	75-in.	11·0	57,605	10·6	4·2	1824	60·8	72
United Mines	Taylor's 85-in.	11·0	96,921	15·5	5·9	4473	65·2	78
Ditto	Cardoza's 90-in.	9·0	100,682	13·8	6·2	4399	56·8	68
Ditto	Eldon's 30-inch	9·0	13,631	16·0	8·4	669	64·7	77
Ditto	Loam's 85-inch	10·0	87,947	11·6	6·3	3751	56·7	68
Ditto	Hocking's85-in.	10·0	97,817	14·4	6·4	4715	56·6	68
Tywarnhayle..	Gardiner's80-in	10·0	75,928	12·0	7·6	4248	55·0	66
East Wh. Rose	Penrose 70-in.	10·0	78,373	18·3	5·4	2840	65·8	69

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New Patents.

SPECIFICATION ENROLLED DURING THE PAST WEEK.

W. M'NAUGHT, of Rochdale, Lancashire, engineer: For certain improvements in steam-engines, also improvements in apparatus for ascertaining and registering the same. These improvements consist—1. In forming grooves in the higher and lower points of the steps of the cam by which the expansion steam-valve is worked, so that the rollers upon the end of the expansion valve rod may take into the grooves; the other points of the steps are left plain. By this arrangement the governor is made to regulate the cutting off of the steam at any part of the stroke. The governor is connected, by means of rods and levers, with the end of the expansion valve-rod, so that every increase or decrease in the velocity of the governor may cause the rollers of the expansion valve-rod to be either pushed up or down a step on the expansion valve-cam, and thus cut off the steam nearer to the beginning or termination of the stroke.—2. Of an improved piston-valve. Instead of moving longitudinally in the case as such valves have hitherto done, this valve is made to oscillate or to revolve, the ports being adapted to such motion.—3. Of a means for regulating or equalising the power developed from expansive engines in which the steam is cut off near to the commencement of the stroke. An arrangement of levers is connected with the beam and parallel motion in such manner that a weight is raised by the levers during the first part of the stroke; this weight acts in opposition to the steam, but after the piston has passed the centre of the cylinder it descends with it, and assists to finish the stroke.—4. Of an instrument for registering the work performed by a steam-engine, which is of nearly a similar construction to that known as M'Naught's Indicator. —*Claims:* 1. The bevelled grooves in the cam for working the expansion valve, whereby the governor is made available for altering the degree of expansion.—2. The oscillating piston valve.—3. The means employed for reducing the strain of the engine nearer to a mean.—4. The registering instrument.

H. J. TARLING, of Bayswater, Middlesex, commission agent: For improvements in the manufacture of fuel and manure, and deodorizing and disinfecting materials. The improvements in "the manufacture of fuel" consist in employing refuse tan, which is to be well mixed with gas tar as it comes from the works, in the proportion of one bushel to a quart of tar. The fuel is then ready for use, or it may be moulded into bricks, if preferred. Instead of tan, peat may be used in the same proportion, and resin, or resin oil, may be substituted for the tar, in which case one pint to the bushel of tan or peat will be sufficient. In the manufacture of "manure," the patentee employs highly carbonized refuse tan and night soil, in equal parts. The prepared tan acts as a disinfector, both in the case of its use with night-soil and in other applications thereof. The patentee does not claim the exclusive use of tan or peat for fuel, as he is aware that they have been previously employed in combination with other materials, but he considers the application of tan and peat, combined with tar or resin, or resin oil, as above described, to be new; without, however, confining himself to the exact proportions above given.—*Claims:* 1. The application of highly carbonized refuse tan and night-soil for the purpose of manure.—2. The employment of the tan charcoal for the purpose of disinfecting and deodorising night soil and other materials.

W. BROWN, of Airdrie, Lancashire, electrician, and W. WILLIAMS, the younger, of St. Dennis, Cornwall, gentleman: For improvements in electric and magnetic apparatus for indicating and communicating intelligence. The patentees describe and claim a method of, and apparatus for, producing a step-by-step motion by magnets, or electro-magnets. The obtaining of electric currents by induction on electro-magnets, formed of iron or nickel, charged with voltaic electricity. A method of signalising by means of sounds, and of sounding alarums. A method of protecting the conducting wires of electric telegraphs by strands of hemp, put on by a braiding engine, and then coating the whole with gutta percha. A method of connecting the transmitting wire, by screwing one end of a wire into a nut formed on the corresponding end of the next wire.

GEORGE JENKINS, of Nassau-street, Soho, Middlesex, gentleman: For certain improvements in the means of producing motive power. The object of this patent is the production of a reciprocating motion, for the purpose of driving machinery, by the combined application of hydraulic and pneumatic pressure. Water is received into a cistern which communicates, by a long tube bent up at its end, with a cylinder open at top. A second pipe is so placed as to form a continuation of the first; near the point of junction are two stopcocks connected to each other by a bar and parallel levers, so that, on turning the cocks, one passage will be opened and the other shut. The lower end of the second tube is inserted in a vessel filled with water, and acts as a water-valve. On turning the cocks, the water flows from the cistern down the first pipe, and rises into the cylinder, forcing upwards a working piston. When the cylinder is full, and the piston at the top of its stroke, the cocks are again turned, and communication with the cistern is cut off. The water now flows from the cylinder down the second pipe into the vessel before mentioned. The pressure of the atmosphere acts in opposition to the vacuum caused by the escape of the water from the cylinder, and forces the piston down. On turning back the cocks, this operation is repeated. The reciprocating motion thus obtained is to be applied through the piston-rod. The stop-cocks are worked by a cam fixed to the shaft of the fly-wheel. The first pipe should be of a length equal to the height to which a column of water will rise in vacuo by atmospheric pressure, and the lower pipe should be longer than the upper one. No claims are given.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

R. A. Brooman, of the firm of J. C. Robertson and Co., of Fleet-street, London, patent agents, for improvements in purifying water, and preparing it for engineering, manufacturing and domestic purposes.

H. J. Christen, of Paris, engraver, for improvements in cylinder printing.

J. W. Rogers, of Dublin, civil engineer, for certain improvements in the preparation of peat, and in the manufacture of the same into fuel and charcoal.

W. Eccles, of Walton-le-Dale, Lancaster, cotton spinner, for certain improvements in looms for weaving.

S. Brisbane, of Manchester, pattern maker, for improvements in looms for weaving.

J. Nasmyth, of Patricroft, Lancaster, engineer, and J. Barton, of Manchester, in the same county, copper roller manufacturer, for certain improvements in machinery or apparatus for printing calicoes and other surfaces; and also improvements in the manufacture of copper, or other metallic rollers to be employed therein, and in the machinery or apparatus connected with such manufacture.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

T. Honnor, Leadenhall-street, the "Utilis" over coat.
H. Phillips, Birmingham, shield for brooch pins.
E. O. Tindall, and L. Tindall, Scarborough, cooking range.
H. J. and D. Nicoll, Regent-street, wrapper cloak.
C. R. Mead, Old Kent-road, gas meter.
E. Bing, Ramsgate, window and door weather joint.
T. Boyle, Wolverhampton, trousers strap.
J. Welch, and Margetson, Cheapside, "Cantal" braces.—*Mechanics' Magazine.*

ACCIDENTS.

Alarming and Fearful Explosion.—A letter from a correspondent, dated Cardiff, Sept. 13, says—"Last evening, about 11 o'clock, a most terrific explosion took place on board the brigantine *Gertrude*, Capt. Newman, laden with a cargo af Duffryn steam coal, shipped by, and belonging to, Mr. Thomas Powell, coal merchant, of this place, bound to Liverpool. Four men (on board at the time) have been seriously injured; one is laying in a most dangerous state, and not expected to recover. The effect of th is explosion was felt at a considerable distance in Crockertown, and even at Cantor; and in an inn, at about a quarter of a mile from the vessel, so great was the shock, that the inmates ran out in the greatest terror, believing the house to be falling upon them. The appearance of the vessel this morning shows how sudden and terrific the explosion must have been. The whole of the decks from the afterpart of the fore rigging are entirely blown up, all the beams broken, the windlass, bits, &c., drawn out, and the fore part of the vessel an entire wreck. Surely this ought to be a warning to the shipping interest, to be more cautious in taking on board this description of coal, through which several similar accidents have occurred. It is somewhat extraordinary that there has never been a single occurrence of this nature at Newport, which is only 12 miles distant, although steam coals have been shipped at a much earlier period than at Cardiff; either greater care is taken at Newport, or the coal of Cardiff must be of a much more inflammable nature. Captains of vessels here loading the same coals view this explosion with much apprehension and fear, and will, no doubt, take every precaution to guard against a similar occurrence; it has, however, made such an impression that time only can remove.

[A correspondent, under date Cardiff, Sept. 17, referring to this unfortunate occurrence, says:—"Surely when life and property are placed in such imminent danger by so fearful a catastrophe, greater importance ought to be attached to it than a mere maritime notice. Owners and masters of ships ought to be very careful in chartering their vessel, or, at least, it would be very advisable to know who are the proprietors or shippers of the coal they would have to load. I understand there is a mode of ventilating the vessel, whereby explosion may, in some measure, be prevented; if this be the case, captains of ships ought to be furnished with it at the expense of the proprietors of these inflammable coals. I can only observe that such an affect has this had upon my mind, having been an eye-witness to the wreck it has produced, that before I again charter for a cargo of steam-coal, I will know who are to ship my cargo, and from what mine."]

Ballensiddan.—As two miners (father and son) were at their work, they let fall one of their tools, and were turning over some fragments of rock in search of it, when they felt some small gravel fall, on which they instantly moved away from the spot. Not more than an instant had elapsed when a ponderous rock of ten tons weight turned out of its place in the overhanging strata, and fell in the very spot which the man and his son had only an instant before occupied.

Blackburn.—As James Fielden was engaged in drawing waggons at the colliery of Messrs. Thursley and Scarlet, Bartle Hills, near Burnley, the traces of the pony caught his legs, and threw him down on the rails of the tramway, when several waggons passed over him, and killed him on the spot.

Airdrie.—A young man, named Bankier, was returning from the fair in the evening, somewhat the worse for liquor, when he fell into a pit lately opened by the Gartsherrie Company, 438 ft. deep, and was found the next morning in a dreadfully mangled state.

Portland.—A fearful accident has happened here at the convict establishment. A number of the men were, as usual, employed at the quarry, obtaining stone for the breakwater at the Roads, when by some means the powerful and pondrous crane employed fell with a tremendous crash, killing three and wounding fourteen others, three or four of whom are not expected to recover.

Aberdare.—Noah Howell, aged 14, was killed by a fall of coal.—William Parry was killed by falling down a pit.

Bilston.—Daniel Sneyd got into a skip to descend the shaft at Mr. Baldwin's pit while the engine was out of gear, when he went down with fearful velocity, and 200 yards of chain fell on him, and, of course, killed him on the spot.

Moxley.—W. Hughes was killed by a fall of coal in one of Mr. Bagnall's pits.

Greet's Green.—J. Lawrance met with a similar accident in Mr. Williams's pit.—In a pit belonging to Mr. R. Haines, the men were waiting to be drawn up, when a lad, named J. Burrows, caught hold of the rope and began swinging; the engine suddenly started, when, not having the presence of mind instantly to drop, he was raised up 60 yards, when he fell and was killed.

Wednesbury.—Thomas Atkins was suffocated by carbonic acid, in Mr. Walker's pit.

Culver Peak Lead Mines.—S. Frost was killed by falling down a winze 9 fms. deep.

SHREWSBURY AND HEREFORD.—The works of this line have at length been commenced by Messrs Brassey, the contractors, in the neighbourhood of Ludlow, between which point and Shrewsbury, 18 miles, it is intended to complete the line in 12 months.

THE SUBMARINE TELEGRAPH.

Since the sinking of the first wire, circumstances have occurred calculated for a short time to retard the carrying out the project to completion, seeing that, in order to the complete establishment of an integral line of telegraphic service between London, Paris, and the Continent, the promoters have to obtain a grant from the French Government of the 18 miles of line extending from the coast to Calais, from which point to Paris the wires are erected. To secure that concession of this section, in the way of which some difficulties present themselves, Messrs. Brett, Wollaston, and Edwards, directors of the undertaking, are now at Paris, awaiting the return of the President of the Republic, who granted the original decree, and to negociate with the Government authorities on the subject.

In the meantime, experience of the experiments already made goes to prove that a stronger species of telegraphic tackle will be required. By the terms of contract with the French Government it was enacted, "that the Government does not reserve to itself the right of making any similar concession," but, "that in case the experiment shall not result in a favourable execution by the 1st September, 1850, the right conceded will revert to the French Government." Consequent on the conditions laid down in the contract, the promoters successfully submerged the wire; but, as is well known, it was subsequently cut asunder by some rocks on the French coast.

Since this happened, divers have been down, and on examination it has been found that where the rupture of the coil occurred it had rested on a very sharp ridge of rocks, about a mile out from Cape Grinez, so that the leaden weights, hanging pannier-like on either side, in conjunction with the swaying of the water, caused it to part at that point, while at another place in shore the shingle from the beach had the effect of detaching the coil from the leaden conductor, that carried it up the Cape. The wire in its gutta percha coating was consequently cut in two places, representing a remnant of wire, of about 400 yards, which was allowed to drift away, till it came into the possession of a fisherman at Boulogne, who made a demand of 60f., for the injury he alleges it did to his nets. Complaints are made by the fisherman, both on the English and French coasts, that the existence of this wire will interefere with their deep-sea fishing, and that its track over the Varne and elsewhere is in the way of places most frequented by fish. It is intended, however, at the suggestion of Mr. J. W. Brett, to pay these people an annual rental, and to establish for their families a philantrophic fund, to induce them to unite in the protection of a great national enterprise. The assistance of the Admiralty has also been secured for the issue of prohibitory orders against fishing on the route of the electric sea line, and against ships dropping or dragging anchors over its site. The authorities of Calais and Boulogne have intimated that they will send drummers round the town to advise fishermen not to fish on these spots, and the company will apply for powers to punish as a misdemeanour any attempts at injuring the wire. The line of wire where it was dislocated is now securely fastened on to the end of a large buoy. H.M.S. *Widgeon*, with Capt. Bullock, has traversed the rest of the track, fishing up at intervals the whole of the sunk wire out of 100 ft. and 150 ft. of water, and laying it down again, thus proving that it has not drifted, and that there were no currents to remove it.

The promoters of the project appear to be fully apprehensive of the inadequacy of the present arrangements, and all their ingenuity is at work to be prepared to meet the emergency. Of currents it may be stated that there is no fear, since it has been ascertained that at certain fixed depths, even in the rapids of the Mississippi or at the Menai, there are none below 3 or 4 fathoms, and that at 5 fathoms there is calm water. In order to meet all existing or conjectured difficulty, the character of the undertaking, so far as its magnitude and solidity are concerned, will now be altered. The electric wire, thin as a lady's staylace in itself, will now be encased either in a 5 or a 10-inch cable, of the diameter of those that placed the Britannia tubes in position, and these will be submerged by the aid of enormous weights. The wire will be imbedded in this gigantic coil or cable composed of what is called whipped plait with wire rope, all of it chemically prepared, so as to protect it from rot, and kyanised; the whole to be chained down, as it were, as the rails are on a railway, by the gravitation of the huge weights in the bottom of the sea.

THE ELECTRIC TELEGRAPH.—The French Government has, it appears, decided on making a trial of Mr. Bain's electro-chemical telegraph for the line between Calais and Paris. Two instruments, one for Calais, the other for Paris, are being made by M. Chevalier, the optician, the instrument which Mr. Bain exhibited to the telegraphic commission serving as the model. These instruments will be ready in about three weeks, but it is feared that the submarine telegraph of Mr. Brett between Calais and Dover will not be ready so soon, consequently, the entire line between Paris and London will not be completed at the time when the electro-chemical telegraph is established. When the line shall be complete, a despatch of about 10 lines may be transmitted and transcribed from Paris to London in about 5 minutes. The electro-chemical telegraph transmits 1200 letters, or about 150 words, in one minute, but some time is required for transcribing the despatch, which is received upon a disk of prepared paper. If the rate of speed in transmission be diminished, it is not necessary to wait for the whole of the despatch before a clerk begins to transcribe it. After a little practice, a person standing near the disk can dictate to a clerk the words as they arrive, and the despatch is written out as soon as it is transmitted. Two minutes, therefore, would suffice for a short despatch from Paris to London, if the same instrument were to supply the entire line, but as the submarine telegraph will not probably be worked by the same index, two or three minutes will be lost in Calais.

TELEGRAPHS IN GERMANY.—Within the last four months, through the activity of the minister of trade, no less than 1000 miles of telegraph have been opened in Austria, making the total mileage about 2000, of which about one-quarter has the wires laid underground on the improved system. Another 1000 miles will be ready by next year. The telegraph now works from Cracow to Trieste, 700 miles. On the 1st October the new telegraph union between Austria, Prussia, Saxony, and Bavaria comes into operation under a uniform tariff, which is one-half of the former charges. This progress will be looked upon with interest by the commercial public here, who are very much in want of facilities corresponding to those enjoyed in the United States, and at the same charges.

CORK AND BANDON RAILWAY, AND PROPOSED TRANSATLANTIC PACKET STATION.—The Lords of the Admiralty have given instructions for a complete survey of the western coast of Cork, to ascertain its capabilities for being converted into a Transatlantic Packet Station and Harbour of Refuge. Three Government Commissioners are to visit the spot.

GLASTONBURY AND HIGHBRIDGE RAILWAY.—We understand that the meeting held in the Town Hall, at Glastonbury, on Monday last, to which we alluded in our last publication, was most respectably attended—Wm. Pinney, Esq., M.P., in the chair, by whom the subject was very ably introduced, and energetically supported by Messrs. R. Neville, P. P. Bouverie, G. Warry, and many other influential individuals. The several resolutions were unanimously adopted, and a provisional committee appointed for promoting the object. Among the important persons present were the chairman and secretary of the Bristol and Exeter Railway, and two or three of the directors. The following influential and highly-respectable gentlemen were appointed as the committee, under whose judicious direction success to the project cannot, we think, be reasonably doubted:—Messrs. W. Pinney, M.P., Somerton; R. Neville, Butleigh; G. Warry, Shupwick; T. P. Porch, Glastonbury; C. Clark, Street; E. Saunders, Highbridge; W. T. H. Philps, Mere; J. W. C. Clothier, Street; R. Woodland, Glastonbury; J. Motley, Street; R. Holman, Glastonbury; T. H. Roach, Glastonbury.—Solicitors, Messrs. Naish and Roche, Glastonbury.

EAST ANGLIAN RAILWAY.—A meeting of East Anglian bondholders and creditors took place on Wednesday, at the London Tavern, to consider a proposition made on the part of the committee of bondholders, and also a counter proposition made by the chairman of the board of directors, with a view of relieving the company from their present financial difficulties. W. Everard, Esq., took the chair, when a long discussion took place as to the merits of the two propositions, in which several bondholders interfered, and eventually the proposal of the bondholders' committee was adopted unanimously, the chairman of the board of directors having withdrawn his proposition in its favour. The chairman then moved the resolutions founded on the committee's proposition. Mr. Seppings seconded the motion. The resolutions were as follows:—"That this meeting approve of the following proposition for an arrangement between the East Anglian Railway Company and their creditors: That the shares created under the Act of 1849—viz., 37,552 shares of 10*l.* each—shall bear a preferential dividend of 5 instead of 7 cent.; and that every deficiency in the amount of such dividend, at any period, shall be made up out of the first assets subsequently available for the purpose of dividend.—2. That the mortgagees, bondholders, and other creditors shall accept such portion of the said shares as remain unissued, in satisfaction of an equal amount of their claims.—3. That such of the said shares as have been already issued shall remain liable to be called up, in accordance with the resolutions, upon the footing of which they were issued. —4. That until the full dividend upon such preference shares shall have been punctually paid for two years in succession, and on any future occasion when such dividend shall fall below 5 per cent., and then again until it shall have been punctually paid for two years in succession, two-thirds of the board shall be nominated by the registered proprietor of such shares, and the other third as heretofore; and at other times two-thirds of the directors shall be chosen as heretofore, and one-third by the new shareholders." A vote of thanks was passed to the chairman and committee of bondholders, when the meeting broke up.

ON THE STRUCTURE OF THE LUNAR SURFACE, AND ITS RELATION TO THAT OF THE EARTH.

BY JAMES NASMYTH.

[Abstract of a communication to the British Association.]

The subject was illustrated by a series of drawings, which the author has executed by the aid of a powerful telescope, which he has made for himself for the express purpose of following up his investigations on the subject in question These appear, from the drawings exhibited and the description given by Mr. Nasmyth, to afford striking illustrations of the nature and action of some of those agencies which in remote periods of the earth's geological history has given to its surface many of its most remarkable features—viz., as to the causes of volcanic action, the protrusion of igneous rocks, the upheaving of mountain ranges, as well as the submersion of extensive portions of the earth's surface, all of which vast geological phenomena Mr. Nasmyth appears to assign to a few grand and simple prime causes, resulting from the consolidation and alternate contraction of the crust and interior of the earth or moon, both of which planets appear to have originally been in a molten condition. After drawing attention to the vast number and magnitude of crater-formed mountains with which every portion of the moon's surface appears to be covered, Mr. Nasmyth proceeded to give the reasons for the conclusion that these crater-formed mountains are really the craters of *extinct* lunar volcanoes; pointing out the frequent occurrence of the central cone as the result of the last eruptive efforts of an expiring volcano, a feature familiar to all those who have observed volcanic craters on the earth's surface. This central cone Mr. Nasmyth showed to exist in the majority of the lunar craters; and thereby drew the conclusion that they were the result of the same kind of action which has produced them on the volcanoes of the earth.

The cause of the vast numbers of such volcanic mountains with which the lunar surface is bespattered was next considered—and traced to the rapid consolidation and contraction of the crust of the moon; whose mass or bulk being only 1-64th of that of the earth, while its surface is the 1-16th, has, in consequence of these proportions, a radiating or heat dispensing surface four times greater than that of the earth in relation to its bulk. From this geometrical consideration Mr. Nasmyth explained how it was that by the rapid cooling and collapse of the crust of the moon on its molten interior, the fluid matter under the solid crust was by this "hide binding" action forced to find an escape through the superincumbent solid crust, and come forth in those vast volcanic actions which in some remote period of time have covered its surface with those myriads of craters and volcanic features that give to its surface its remarkable character.

The cause of the vast magnitude of the lunar craters was next alluded to—and assigned, as in the former case, to the rapid and energetic collapse of the moon's crust on its molten interior; the action as regards *the wide dispersion* of the ejected matter being enhanced by the *lightness* of the erupted matter, seeing that the force of gravity which gives the quality of *weight* to matter on the moon as on the earth is so very much less on the surface of the moon than on the earth, so that the collapse action had to operate on material probably not half the weight of cork, bulk for bulk.

The causes of those vast ranges of mountains seen on the moon's surface were next touched on; and Mr. Nasmyth endeavoured to explain them by the continued progress of the collapse action on the solid crust of the moon, crushing down or following the contracting molten interior, which by the gradual dispersion of its heat would retreat from contact with the interior of the solid crust, and permit the crust to crush down, *and so force a portion of the original surface out of the way*, and in consequence of this action cause such to assume the form and arrangement of mountain ranges.

Mr. Nasmyth, in illustration of this important action, adduced the familiar case of the wrinkling of the surface of an apple, by reason of the contraction of the interior, and the inability of the *surface* to accommodate itself to the change otherwise. The mountain ranges in question Mr. Nasmyth considers to be nothing more or less than the material, which in the original *expanded globes*, formed the comparatively level crust of the moon and earth. The occasional fall of the unsupported crust on the retreating nucleus resulting in a tremendous splash on the subjacent molten mass, was described to yield a very probable explanation of the appearance of granitic and igneous centres of certain mountain ranges, as well as the injection of igneous rocks in the form of trap dykes and basaltic formations, which appear to have come forth in this manner from below the crust of the earth, and overlay formations of comparatively very recent formation. The partial and *gradual* retreat of the molten interior or nucleus from the solidified crust was in like manner suggested as the most probable cause of the submersion of large portions of what had previously been dry land, causing, when on a comparatively small scale, "bason formations;" and when on a vast scale, and with more sudden action, occasioning the influx of the ocean over the submerged continent, the waters hurling along with them fragments of rock, denuding the surface of the submerged land, and scattering its surface with the wreck in the form of *boulders, gravel, sand,* and *clay*.

Mr. Nasmyth suggests the above contracting theory to the most earnest and careful attention of geologists, as the most probable and satisfactory explanation of the cause of those vast torrents of which the boulder and gravel-covered surface of extensive districts of the earth yield the most striking evidence; thus have we then, in this grand but simple action of the progressive collapse of the crust of the earth following down after the retreat of the contracting interior, the cause of those tremendous earthquakes, the evidence of which is so clearly indicated by faults and dislocated strata.

The origin or cause of those bright lines which radiate from certain volcanic centres on the moon's surface (Tycho for instance) was next alluded to, and illustrated by a very striking experiment of causing the surface of a globe of glass filled with water to collapse on the fluid interior by rapidly contracting the surface while the water had no means of escape. The result was the splitting or cracking up of the surface of the globe in a multitude of radiating cracks, which bear the most remarkable similarity to those on the moon. Mr. Nasmyth further illustrated this subject by reference to the manner in which the surface of a frozen pond made be made to crack by pressure from underneath—so yielding radiating cracks from the centre of divergence where the chief discharge of water will take place, while simultaneously all along the lines of radiating cracks the water will make its appearance—thus explaining how it is that the molten material, which had in like manner been under the surface of the moon during that period of its history, came forth simultaneously up through the cracks, and appeared on the surface as basaltic or igneous overflow, irrespective of surface inequalities. Mr. Nasmyth concluded his address by an earnest appeal to his geological hearers to test the correctness of what he had advanced, by a careful inspection of those vast natural records of the changes which the earth's surface has undergone, of which our mountains, hills, and valleys are the mighty monuments, and which shadow forth in characters which science can trace to past events of the most surpassing interest and grandeur, inasmuch as they are the evidences of the handwork of the all-wise Creator when preparing the earth for the advent of man.

GOLD IN CANADA.—Indications of gold have been discovered near the Wallace Mine, belonging to the Upper Canada Mining Company, on the north shore of Lake Huron. The experienced mining engineer, Capt. O. H. Mathews, who had been on a visit of inspection to the locality, reports as follows:—"To the north of the Wallace Mine, and at a distance of about 10 miles, is the iron mine. The greater part of the road is gradually ascending, and liberally wooded with pine, birch, oak, ash, maple, spruce, &c. Beyond these are the two principal (east and west) mountains, corresponding in character with a series of auriferous rock in the Virginia and Macabus gold range of the Brazils, in which formations some of the most valuable metals are being worked with satisfactory and permanent benefits. The gold extracted from the mountains in Virginia and Brazil is rarely visible in the rock. It is stamped to a fine powder or sand, the bulk of which is reduced by washing, after which the mercury is intermingled, so as to form an amalgam. The quicksilver is separated, and the gold retained in the shape of dust." Capt. Mathews recommends that a suitable force should be sent, to make the necessary excavations, which he is confident will be attended by beneficial results.

"BLACK-LEAD" IN NEW BRUNSWICK.—In last week's Journal, we published a paragraph respecting the alleged discovery of "black-lead," and now extract, from the *St. John's News*, the following account of a visit to the mines:—"We paid two visits to the mines near the Falls last week, and saw the work of digging going on, also the lead, pure as it can be, in the side of the mountain. It is dug out as easily as if it were tallow, costing no further labour than that of removing from the sides of the veins the rocky substance. The lead runs in veins through the mountain; and these veins extend several miles in length, to say nothing of the depth below the surface of the earth, which must be very great. The company have a miner superintending the work, who had wrought in the principal lead mines of England and South America; and he says he never saw better lead in his life than what he is now digging out at the rate of 10 tons a day. A person well-informed values this lead discovery to be equal to all the property in the City of St. John; and we do not doubt it, for we believe the lead to be inexhaustible. Call at our office, and examine the specimens we took out ourselves, just as they came to hand. The company have received several orders already from the States for supplies. We saw a pile of the lead—say, the bulk of a ton of coal—and did our utmost to discover slate or stone among it; but we could not find a bit the size of a pea in the whole heap; it was all pure soft lead."

In the state of Vermont, a vein of coal, about 18 inches thick, has been recently struck upon, by workmen employed in mining iron ore near Brandon. The appearance of the coal is stated to be intermediate between that of charcoal and anthracite. It burns with tolerable freedom, and emits an odour slightly bituminous, and otherwise rather peculiar. We are not aware that the quantity promises to be sufficient to make it a matter of economical importance. The deposit is 50 feet below the surface.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—Field's engine-shaft is sunk 8 fms. 1 ft. under the 70 fm. level; the lode is from 4 to 6 ft. wide, and of a promising appearance; the 70 fm. level is driven east of Field's engine-shaft 25 fms.; all this driving, with the exception of the first 2 fms. from the shaft, has been in a continuous course of copper ore, worth from 40*l.* to 70*l.* per fathom; and the lode in the present end is 6 ft. wide, worth at least 100*l.* per fm.; in the winze sinking under the 70 fm. level, east of this shaft, the lode is 6 ft. wide, nearly all copper ore, worth 60*l.* per fathom. In driving the 60 fm. level, east of the said shaft, we intersected a small flookan crossing the lode; this crossing heaved the lode 7 ft. north, where we find the lode is 4 ft. wide, and are opening west on its course; and in the present end the course of ore on the north part is from 1 to 2 ft. wide worth from 20*l.* to 30*l.* per fm.; this has every appearance of being connected with the course of ore in the 70 fm. level, as the whole of the ground is drained of water; this ore in the 60 fm. level is 16 fms. east of the 70 fm. level end. No other change since my last report. On Saturday last, three tribute pitches were set in the 70 fm. level to 12 men, four in each pitch, at 1*s.* 9*d.* in 1*l.*

BAT HOLES MINE (near Shrewsbury).—The operations on the new vein are still progressing favourably; in the past week 2 fathoms have been driven through ground worth about 2 tons of lead ore per fathom, the vein being 1 ft. wide, of good mixture of spar and lead; the winze below this level has been sunk 2 fms. 3 ft. through good orey ground, worth at this time full 20*l.* per fathom for lead ore—ground easy for sinking. The character of the lode in the winze is much the same as in the end, only at this time it is larger; it is 1 ft. 6 in. wide, being composed of spar, and good lumps of lead ore. The bearing of this vein is about 30° to the east of south, or the west of north, and about 25 fms. west of the Cornish vein; the bearing of the Cornish vein is nearly north and south, therefore it can be plainly seen that the junction of the two veins will be found by driving south, and it has to pass through a long piece of virgin ground, strongly mineralised. The underlay is about 3 feet per fathom, approximating to the Cornish shaft. The Cornish shaft is supposed to take this new vein at about 110 fathoms deep, and if it should be found productive to that depth, great returns of profit may be calculated from these veins—viz.: the Cornish and the new vein. About 20 tons of lead ore from this new discovery will be at surface by the end of this week (besides nearly 8 tons sampled on the 5th inst.) About 7 fms. have been driven through this shoot of ore, and there are certain places in it nearly 1 ft. wide, solid lead—this alone is a most important discovery.

BEDFORD UNITED.—The ground in the 115 fathom level south is just the same as last reported. In the 103 fm. level east the lode is 2½ ft. wide, and worth from 4 to 5 tons of ore per fm. The lode in the 115 fm. level, east of Andrew's winze, is 4 ft. wide, composed of fluor-spar, mundic, and ore; in this level west there has been no lode taken down. The lode in the 90 fm. level east is 3 ft. wide, producing saving work. In Arscott's winze, in this level, the lode is 3 feet wide, and yielding 4 tons of ore per fm. We are rising by the side of the lode in the 80 fathom level. In the midway level the lode is not quite so productive as it has been. The pitches still continue to yield some good returns.

BUTTERDON.—Since my last report, I have erected a horse-whim, which is working well, and have resumed sinking the engine-shaft. The capels are still continuing on the east side of the said shaft, containing large cubes of lead ore. The engine-house is nearly completed to the roof.

CARTHEW CONSOLS.—Since my last report, we have done nothing in either end in the 75 fm. level, the men from these ends having been engaged in preparing the shafts for the steam whim kibbles to work in, as well as preparing to sink to another, or 85 fm. level, all of which preparations are now complete; neither has there been anything done in the 65 fm. level end north, but south in this level we have been working the whole of the past week, and in this end the lode continues in size much as when last reported; if there be any difference, it is yet better in quality, especially in the bottom part of the end, where the leader of lead is about 1½ ft. wide, and the ground about it very good; that of it which we have broken down in this end (this week) has quite equalled our expectations in richness, being little else than lead. In the middle shaft we are progressing under very favourable circumstances, the lode being of a good size, yielding some good work, and the ground also good about it. The winze which is being sunk about 20 fms. south of the middle shaft, in the bottom of the 40 fm. level, shows very well indeed; the lode in it is about 2 ft. wide, carrying with it a rich leader of lead, and the ground about it is very easy. The tribute department looks very well. On Monday next the steam-whim will be put to work in full order, all her arrangements having been completed this evening (the 14th inst.), which will put us in a position we have latterly been anxiously looking forward to.

EAST BALLESWIDDEN.—We are now building a wheel, and as soon as this is completed and at work, we shall raise a good quantity of rich tin from the flat lode. We found a winze in the adit level, in the bottom of which we have good tin ground. At about 12 fms. from surface we found a beautiful branch of tin, from which we sold 20*l.* 3*s.* worth of tin.

EAST CROWNDALE.—The lode in the middle shaft is not so good as when last reported on; it is disordered by a large flookan, but still gives good stones of tin In the 40 west the lode is large and kindly, but poor; in the 40 east the lode is from 8 to 9 ft. wide, some part tinny; the stopes in the back of the 40 are producing saving work. We have discovered a good bunch of tin in the bottom of the 28 fm. level; the tributers in this pitch have 6*s.* in 1*l.*, and should it continue their take out, they will have a good start. This also looks well for our 40 fm. level east, which is about 15 fathoms behind. No other alteration in our tribute department to notice this week.

EAST SHARP TOR.—Hitchins's engine-shaft is now 16 fms. 3 ft. below the surface; the lode is without any material alteration since last reported. The engine works well, and makes one revolution per minute to keep the water.

EAST TRELAWNY.—We have commenced an open cutting on the barytes lode, mentioned in my report of the 27th August, and are now on its course about 3 fms.; it is 2 ft. wide, composed of barytes, with good stones of lead intermixed, and still continues on the same bearing as mentioned in my last, which is 17° east of north. I think it advisable to drive on a few fathoms before costeaning for it in the north part of the sett, and if any further discovery be made, I will give you early information.

ESGAIR LLEE.—I cannot speak of any alterations in the caunter lode in the deep adit, west of the junction, since my last; the lode is about 3 ft. wide, yielding, on an average, from 4 to 5 cwts. of ore per fathom. Since my last, a change has taken place in the caunter lode in the 12 fm. level east from the surface; for during the last 3 or 4 feet in driving a large portion of the lode has been composed of gossan; but I think, from the promising appearance of the lodes, the alteration is only a partial one—it being still 3 ft. wide, and is strongly mineralised throughout, yielding about 4 cwts. of ore per fm. The stopes, on an average, are looking much the same as in my last.

HAWKMOOR.—Since our last report, the 30 fm. level east has been extended 5 fms. 4 ft. from the shaft, but has been disordered by three cross-courses; it is now beginning to show a regular leader of ore, and will doubtless improve rapidly as it advances towards the rich bunches seen under the 20 fm. level; the same level west is driven 7 fms. 2 ft. through a profitable lode, and is also likely to improve still further as it is extended towards the western cross-course. The lode in the winze under the 20 fm. level, west of the shaft, is very kindly, being worth apparently from 3 to 4 tons of ore per fathom; the western end, in the 20 fm. level, is worth from 2 to 3 tons of ore per fm., and a winze now in course of sinking from the 10 to the 20 fm. level will lay open some profitable tribute ground. Mr. Evan Hopkins has lately visited this mine, and has recommended that operations should be immediately commenced to the westward, where he is of opinion that larger bunches of ore and easier ground may be reasonably expected at a shallow level; the western shaft is already 18 fms. deep, and will give access to the lode in a part of the sett where it runs through a flat basin for 386 fms. Mr. Hopkins has likewise recommended that the back of the Wheal Tavistock lode should be cut in the same basin; pits have been accordingly sunk, and the lode may be soon expected, and the necessary steps are being taken to fork the water in the western shaft.

HEIGNSTON DOWNS.—The lode in the 45 fm. level has improved in the past week, producing at present good saving work for copper ore. In the 35 fm. level cross-cut north there is no change to notice; the rise in the back of this level is fully equal with last week's report; the winze sinking below this level is much as last reported on, as also the cross-cut south in this level. The lode in Hitchins's shaft produces occasional stones of ore.

HENNOCK.—We have holed the winze to the 10 fm. level; the ground in the engine-shaft is favourable for sinking, with some good branches of lead dropping into the lode.

HOLMBUSH.—No lode has been taken down in the 132 fm. level east or west since last reported on, the walls of which look well. The ground in the two cross-cuts north and south in this level is still favourable. The lode in the 120 fm. level south is 4 ft. wide, composed of quartz and stones of lead. We have intersected a branch in the 120 fm. level cross-cut south about 8 in. wide, dipping north 2½ ft. in a fathom; it is composed of spar, mundic, and spots of copper; we are still pushing on the cross-cut, for we are of opinion the main part of the lode is still before us. The flap-jack lode in the 100 fm. level, east of the great cross-course, is 2 ft. wide, producing stones of copper ore, and opening ground that will set at a moderate tribute. The pitches in the back of the level are producing a fair quantity of ore. Everything is being prepared as fast as possible, previous to sinking Hitchins's engine-shaft below the 120 fm. level; and, as far as our efforts go, not a moment shall be lost in accomplishing a communication to the 132 fathom level.

KESWICK.—At Brandley nothing has been done during the past week, owing to the want of top water for the wheel. The tribute pitch in the salt level continues about much the same as last reported. We have had four men cutting through the vein in the salt level forehead, and have commenced driving upon the east vein, which is looking very well, but no ore at present. About two or three fathoms forward we expect a junction with a small vein, which has spots of ore in it at the place cut in cross-cutting. At Old Brandley, the vein in the new level is gaining in strength, and looks very promising, with spots of carbonate and sulphuret of lead. At Thoruthwaite there is no material alteration, the ground in the 17 fm. forehead is easier, and the bottom level about the same as last reported.

KIRKCUDBRIGHTSHIRE.—Owing to the fine weather, the water has not been out of Stewart's shaft for the week, but we hope it will not be so long. The lode in the 62 end west is 3½ ft. wide, with a small branch of lead on the south side, worth 5 cwts. of lead to the fathom.

LLWYNMALEES.—We have resumed driving the 8 fm. level, and stoping the back of it; the lode in this level is not quite so productive as I have seen it, still we have a good branch of ore in it. The stopes over here look as well as I have ever seen them. We have not been doing anything on the lower floors since last report, all the dressers being required for the prilling grate. We have now got over the whole of the stuff accumulated on the shaft side by the whim. I have no doubt the mine will be quite clear of water by Tuesday evening, the 17th, as the engine pumps with much steadiness. —The 8 fm. level has much improved since Friday last, it will now yield 3 tons of ore per fm., and, if I am not deceived, it will still further increase its produce soon.

NORTH WHEAL FRIENDSHIP.—At the cross-cut in the 40 fm. level, south from Buller's engine-shaft, there is no alteration since last report. The 30 fathom level bears precisely the same appearance as in my last; the lode is about 2 ft. wide, composed principally of mundic and quartz, with stones of lead occasionally in it. In the 32 fm. level, north and south from Cross's rise, the lode is about 1½ ft. wide, producing from 7 to 8 cwts of lead per fathom; the 32 fm. level, south from Cross's rise, has been communicated with the end north since last reported on. A pitch is now let in the back at 7*s.* 6*d.* in 1*l.* The pitches on the whole are looking pretty well, and we hope to have 15 tons of lead ores dressed by the end of next week.

PENZANCE CONSOLS.—The mine is looking very well; on the north part we have a good tin lode; with four men we broke 70*l.* worth of tin during the last month; on the south part we have a fine lode of tin, west of Carthew's shaft.

SOUTH BALLESWIDDEN.—We are down 18 fms. under the adit level. We have a good branch of tin at the bottom of the shaft and in the eastern end; in this end we found the old men's fork, from which we have taken several sacks of good tinstuff.

SOUTH WHEAL TRELAWNY.—The cross-cut is in course of driving in the 60 fm. level, by] six men; to the west of the engine-shaft the ground is not so favourable as it has been; there is also a great deal of caples and mundic, very strong, but not much water discharging. With respect to the operations on the costeaning part of the boundary, we have sunk a small shaft about 4 fms., and intersected hard ground and water. We have also stopped sinking, and commenced driving to that depth. We have likewise intersected a small vein, about 3 in. wide, on a north and south course, underlaying about 5 ft. in a fm.; as to myself, I do not think it worth notice.

TREBELL CONSOLS.—At present we are more particularly engaged in sinking on the hill through the attle on the south lode, which could not be done except in summer; we are now not more than 3 fathoms below the surface. So far as we have seen, the lode is much the same as before, being about 9 feet wide, producing tin throughout, the whole of which would pay for stamping, if the stamps were on the spot; but previous to any erections, a shaft should be sunk as far as possible for water, and as there is another lode, which is very large, only a few fathoms further north, which will produce tinstuff throughout, one shaft would command both lodes. An adit has been driven in a former working within about 18 fms. of this north lode, and would intersect it 8 fms. deep, and 10 fms. further east than the former working, which is not so deep as the adit. I am not aware that the former workings at this spot are more than 5 fms. deep. Much tin may be raised on this lode in the adit level, and the cross-cut carried on to intersect the south lode, which is, at this point, about 20 fathoms, as the lodes diverge going east, and approximate west. In the former workings on the lodes nearly the whole of the stuff broken from them were carried away to stamp, which was more than one mile distant. We have drawn the water, and worked a few days on the caunter lode in Bullock's-field; the workings are about 5 fms. deep; we returned tin from here in December last. The water is plentiful at present, and much more in the winter; this lode is about 18 in. wide, producing very good work. We intend driving the deep adit west on the north lode; we have only been working in the place before-mentioned for a few days, as it could not be done in the winter. The shallow level can be driven at the same time, and it would give additional light to what has been discovered in the west part of the mine, and be much deeper than the former workings; but as two of the lodes are very large, it will be necessary to have the work stamped on the spot; to do so, a steam-engine of from 20 to 25-in. cylinder should be erected, which will be sufficient to drain the water and crush the stuff for a long time. Should you think well to communicate by the shallow level before-named, this erection might be left until spring; but if the shallow level is not driven, a shaft should be commenced immediately, and preparations made for the speedy erection of machinery.

TREGEAR CONSOLS.—We have made a discovery of considerable importance in this mine, and are now raising stones of ore from 200 to 300 lbs. each, and have a good lode in sight, from which we are raising ore, and have 2 tons at surface.

TRELAWNY.—At Phillips's shaft, in the 82 north, the lode is 4 ft. wide, worth 9*l.* per fm. In the 62 north the lode is 2 ft. wide, worth 8*l.* per fm. At Trelawny shaft, in the 92 north, the lode is 2½ ft. wide, worth 7*l.* per fm.; in the same level south the lode is also 2½ ft. wide, and worth 7*l.* per fm. In the 82 north the lode is 5 ft. wide, worth 8*l.* per fm.; in the same level south the lode is 3 ft. wide, and worth 8*l.* per fm. In the 72 north the lode is at present disordered. At the north mine, in Smith's shaft, the lode is 2 ft. wide, worth 9*l.* per fm. The stopes are looking much as usual. We sold on Friday, the 13th inst., two parcels of lead ores, No. 1 computed 100 tons, to Messrs. Locke, Blackett, and Co., at 19*l.* 16*s.* per ton; No. 2 computed 48 tons, to T. Somers, Esq., at 2*l.* 2*s.* 6*d.* per ton.

TRELEIGH CONSOLS.—In the 90 fm. level, west of Garden's, on Christoe's lode, the lode is 3 ft. wide, worth 12*l.* per fm.; in the winze below the 90 fm. level the lode is 20 in. wide, with stones of ore; in the stopes above the 90 fm. level, east of Harries's winze, the lode is 2 ft. wide, worth 20*l.* per fm. In the 80 fm. level, west of crosscut, on the north part, the lode is 18 inches wide, with stones of ore, and is looking more kindly; in the 80 fm. level, east of Christoe's, the lode is 18 in. wide, worth 7*l.* per fm. In the 70 fm. level, west of Garden's, the lode is 2 ft. wide, worth 5*l.* per fathom; in the winze below the 70 fm. level the lode is 2 ft. wide, worth 3*l.* per fathom; in the stopes above the 70 fm. level, west of Stevens's winze, the lode is 2½ ft. wide, worth 12*l.* per fm. On Parent lode, in the 52 fm. level, east of Parent shaft, the lode is 20 inches wide, not much ore. In the 40 fm. level, east of Parent shaft, the lode is 3½ ft. wide, with stones of ore; the 40 cross-cut, south of Parent shaft, is driving towards the middle lode. On the middle lode, in the winze below the adit, east of Nicholson's shaft, the lode is 1 ft. wide, with good stones of ore.

TRELOWETH.—I have set the engine-shaft to sink by 12 men, 20 fathoms, for 8*l.* per fm. The adventurers pay the expense of keeping a horse on the whim, to constantly draw the stuff; at the same time, obliging the men to commence working at one o'clock on Monday morning, and continue until 12 o'clock on Saturday night. The 12 fm. level is set at 20*s.* per fm., and is producing large and good stones of yellow ore.

TREVILLE.—We have been hindered in the shaft for some days by the water being in, owing to a defective working barrel; however, that is now replaced by a new one, and the water in fork. The shaft is down about 13 fathoms, and the stratum is still as promising as when last reported—the heads, or joints, of the elvan, containing spots of lead, minute spots of copper, mundic, carbonate of iron, and friable spar. The ground is not so favourable for speed as it was; for although sufficiently hard to require powder, it will not yet stand without timber.

TREVISKEY AND BARRIER.—The 272 fathom level is still unproductive. The lode in the 260 fm. level is 2 ft. wide, unproductive, being composed of spar. The lode in the 248 fm. level is 18 in. wide, yielding 2 tons of good ore per fathom; in the winze sinking below this level the lode is 18 in. wide, yielding 3 tons of good ore per fm. The lode in the 236 fm. level is 2 ft. wide, producing 2 tons of ore per fathom; in the winze sinking below this level the lode is 2 ft. wide, yielding 2 tons of ore per fm. The lode in the 224 fm. level is 1 ft. wide, yielding 1 ton of ore per fathom. In the 212 cross-cut south we have intersected the south part of the lode, which is 15 in. wide, yielding 1 ton of ore per fathom. In the 200 cross-cut south we have intersected a branch 6 in. wide, producing stones of ore, but we think that the principal part of the lode is further south, and, therefore, continue to drive this cross-cut. We are driving a cross-cut south 30 fms. east of Michael's shaft in the 260 fm. level, with the hope of intersecting a lode. The lode in the 40 fm. level, driving west of Williams's old sump-shaft, is 15 in. wide, producing stones of ore. We have about 12 fms. further to drive this level to intersect the Tresavean lode. We have 66 men employed on tutwork, and 34 on tribute pitches. We sampled 505 tons of good quality ore on Wednesday last, and expect to raise from 400 to 500 tons for September and October.

TYWARNHAYLE AND NANCEKUKE.—The report states the 90 fm. level, east of Bennett's shaft, continues good, yielding 8 tons of ore per fm. The lode in the 80 fm. level, east of Bennett's shaft, is 2 feet wide, worth 3 tons per fm; the lode in the 80 fm. level, west of Gardiner's shaft, is 4 feet wide, yielding a little ore; this end is expected to meet a winze from the 70 in a few days, when there will be ground for two pares of stopers; the lode in the 80 fm. level, west of James's shaft, looks promising, with 4 tons per fm. The lode in the 70 fm. level, east of James's shaft, is worth 2 tons per fm., and looking kindly. The lode in the 94 fm. level, east of Charlotte's shaft, is looking more favourable than at the last report. The lode in the 84 fm. level east is very promising, worth 1½ ton of good ore per fm. In the 64 fm. level east there is a promising discovery; in the last 6 feet driving it has altered in character, and is daily improving—worth 2½ tons of ore per fathom.

WARLEGGAN CONSOLS.—We put our stamps to work on Thursday on some of the stuff we have been clearing from the run in the adit, and find, as we expected, that it will pay very well. Our new adit shaft is down 6 fms., and I have great pleasure in informing the directors that yesterday we cut a lode in the bottom of the shaft, containing splendid stones of tin; the lode is at least 20 in. wide, containing good work throughout. In the level driving west of the trial shaft the lode is 2 ft. wide, saving work. As there is nothing doing in the north part of the mine, we intend after to-day to detach the pumping gear from the wheel, and drive the stamps at their proper speed.

WELLINGTON.—The cross-cut north of the engine-shaft, in the 50 fathom level, is driven 8 fms., and in the last 2 fms. driving we have intersected three branches, principally spar. I expect there is more lode still, north. The lode in the 42 fm. level, west of the engine-shaft, is from 1 ft. to 18 in. wide, producing some good stones of copper ore; in the same level, east of Parcolly shaft, the lode is 9 in. wide, worth for copper and tin, 6*l.* per fm. On Tuesday last we commenced sinking a winze under the 32 fm. level, east of said shaft, and 15 fms. east of the 42 fm. level end; the lode in the winze is worth 18*l.* per fm. for copper and tin. The lode in the western whim-shaft, sinking under the 10 fm. level, is from 2½ ft. to 3 ft. wide, worth for copper, 21*l.* per fm. The lode in the 10 fm. level, west of said shaft, is 1 ft. wide, worth 7*l.* per fm. The 10 fm. level east is suspended, until the winze sinking under the adit level east is communicated to the 10 fm. level. We have been obliged to put the men from the adit and 10 fm. level to sink the above-named winze, for ventilating the two eastern levels. The lode in the adit level west is 1 ft. wide, spar and caples. There is no change to notice in the cross-cut north of the engine-shaft, neither on the north lode, since my last report. Our tribute pitches continue to look pretty well. Our sampling on the 24th inst., will be about 200 tons.

WEST WHEAL JEWEL.—We have not taken down the lode in any level or winze on Wheal Jewel lode in the past week. The 57, east of Hodge's cross-course, on Tolcarne tin lode, is worth 25*l.* per fm.; ditto, west of Hodge's cross-course, is worth 40*l.* per fm. The winze in the 30 fathom level, west of Quarry shaft, on the same lode, is worth 8*l.* per fm. The shallow adit level, west of Tregoning's shaft, on the same lode, is worth 9*l.* per fm. The stopes in the back of the 12 fm. level, west of Pryor's winze, on the same lode, are worth 12*l.* per fm.; the stopes in the bottom of the 12 fm. level, east of Tregoning's shaft, on the same lode, are worth 28*l.* per fm.; the stopes in the bottom of the same level, on the same lode, west of Tregoning's winze, are worth 24*l.* per fm. These stopes are working on tribute.

WEST WHEAL VIRGIN.—We have driven 2 fms. east and west from the engine-shaft, and we have good tin ground in both ends; all the ground opened will work on tribute. Our engine-shaft is down 9 fms. 1 ft. from surface, and we have a good lode at the bottom of the engine-shaft holding down.

WHEAL CREBOR.—In the 40 end, west of Rundle shaft, the lode still continues very promising. A sample from the leader, or orey part, being assayed by Mr. Harvey, assayer, of this town, produced 19½ per cent. for copper—this leader averaging, for the last 10 ft., from 6 to 10 in. wide; the sample assayed was just as it was broken from the lode; if this end of the lode continues as at present, it will leave a back that will work on a low tribute. The other ends are just as last reported; the same may be said of our tribute pitches. In our costeaning we have opened the backs of four lodes; but, as it is intended to show the lodes cut in costeaning on a plan with their directions and distances, it is useless to enter into details on this part of our operations. The engine, pitwork, &c., are in good working order.

WHEAL EMILY.—We have advanced in the deep level so far, and find it is driven in on the course of a large beautiful flookan lode, full of mineral properties, as the lode in the 12 fm. level is, 2 ft. big or more. I shall get some of the flookan assayed; it was from some of these the largest produce of silver was obtained—viz., 40, 90, and 200 ozs. The appearance of the lode through the deep level clearly indicates that there is a large body of minerals in depth, and near. From the commencement we have gone through many long runs, and secured about 50 fms.; and expect, by the end of another week, to be considerably further advanced. We get delayed at times with the bad air; but I am doing all I can to clear the level without air pipes, which would be costly, and attended with delay. I have also secured and cleared out a 6 fm. run in the 12 fm. level; this must have occurred very lately. I have engaged a party to dress the ore, and shall continue them, as I intend having the lode broken away for that purpose. I have learnt that under the 12 fm. level the lode changes, and carries a very light flookan—from which change we may expect this difference in the mineral ores which has been spoken of; the lode on which the deep level appears to have been driven upon has a fine flookan, so far as we are advanced on it, varying from a dark blue to light colours, and is a very promising lode.

WHEAL FRIENDSHIP.—The lode in the 205 fm. level, west of Buller's shaft, on the south underlier, is 2 feet wide, producing one ton per fm. In the 205 cas

the lode is disordered by a cross-course. The lode is not yet cut in the 210 fm. level cross-cut, south of Taylor's shaft. The south lode in the winze sinking under the 200 fm. level, west of Taylor's shaft, is producing good stones of ore. The lode is not yet cut in the 60 fm. level, south of Brenton's shaft. The south lode in the 40 fm. level, east of Brenton's shaft, is improved, and yields 1¼ ton per fm. The tribute pitches are slightly improved. Estimated quantity of ore for next sampling, 149 tons.

WHEAL HAMLYN.—During the last week we have driven about 2 fms. east from shaft, where the lode is improved, and still going better.

WHEAL LANGFORD.—Since my last report we have cut through the copper lode in the adit level, at Wheal David or Langford shaft, where we have a lode from 5 to 6 ft. wide, 2 ft. of which is good saving work for copper, and will bear the inspection of the most practical miner. Our silver lode in the north adit end is producing rich silver ore, much better than any we have yet sold; we have not taken down any of the lode in this level this last week, but shall do so in the course of three or four days time. We have not taken down any of our copper lode here since last reported on. The stopes in the back of this level are still producing good saving work for silver. Vivian's shaft is cleared to the adit level, and the ad it cleared and secured about 79 fms. west of Malachi's shaft, 10 fms. of which is west of Vivian's shaft; we have about 21 fms. more to clear to get in under Broad's shaft; the level at present requires timbering, consequently we cannot get on as fast with clearing as we have done. The lode in the 5 fm. level, at Pengelley's cross, is just as last reported on. We are preparing our silver ore for the market, which will be ready, all being well, in about eight days from this time, computed to be 100*l.* worth, or upwards.

WHEAL PENHALE.—The 40 fathom level end south is being driven under very favourable circumstances, the lode in which is large and improving very much as we get forward, as is also the ground. I intend next week to commence driving north in this level, where, from the lode which is gone down in the bottom of the level above, it may be justly calculated we shall open a good run of tribute ground. The lode in the north end, 30 fm. level, continues much as last noticed, and the lode in the south end, in this level, turns out as I anticipated—very good indeed. The lode in the north end, 20 fm level, still shows very well, and we shall soon considerably augment our tribute department; at present it is without much change.

WHEAL RUSSELL.—Richards's shaft is sunk about 2 fathoms below the 37 fm. level. We are sinking on the lode, which is about 9 ft., but we have not yet met with the north wall; we have very good stones of ore in the lode throughout; we are now about 15 ft. to the north of the south lode, and expect in sinking from 8 to 10 fms. more that a junction of both lodes will take place. We are driving east on the course of the south lode in the 37 fm. level; the lode here is about 15 in. wide, and worth about 1½ ton of ore of good quality per fathom—this end is about 5 or 6 fms. behind the course of ore we had in the level above. We have not met with any lode in the cross-cut south in the 16 fm. level; we are continuing to drive, and have met with several small branches, but nothing like a defined lode. The lode in the pitch in the bottom of the 26 fm. level, is yielding about 2 tons of ore per fathom. The pitches in the back of the 16 and 26 fm. levels are much the same as when last reported on. We have 25 tons of ore dressed, and hope to make it 30 tons by the first week in October.

WHEAL VINCENT.—The lode in the eastern end is at present about 20 in. wide, producing good work for tin. We are about to commence stoping the back of this end, where we have also a good lode for tin, which is about 3 ft. wide, and I hope to raise sufficient work to supply our stamps. The lode in the west end is somewhat smaller since I last reported; it is very regular, carrying good ground each side of it.

FOREIGN MINES.

IMPERIAL BRAZILIAN MINING ASSOCIATION:—

[Received per *Petrel* packet, on the 18th September.]

Gongo, from the 13th to the 22d June	*Lbs.*	4	1	4	0			
„ from 23d to 30th June		10	1	10	0			
„ from 1st to 12th July		5	9	12	0	20	0	6 0
Bananal, from 13th to 30th June		3	1	17	0			
„ from 1st to 12th July		3	3	8	0	6	5	5 0
Total	*Lbs.*	26	5	11	0			

About 6400*l.* of gold dust has arrived at Falmouth, per *Petrel* packet.

The petition for reducing the duty of the Imperial Brazilian Mining Association to 5 per cent. has passed the Chamber of Deputies; the result in the Senate (which the agents hope will be equally favourable) would be known in about a fortnight.

Bananal, June 23.—All our works here are going on regularly; the vein, however, in the back of the 14 fm. level continues poor, but its extremely promising appearance leads us to expect an improvement daily; it has not yielded any work for the wash-house during the past 10 days; the stuff has all been put to the stamps, but its produce is very little. Capt. Brokenshar's report, to which I beg to refer you, speaks very favourably of this place. Our 24 fm. level progresses very satisfactorily, and I am happy to inform you that, although we are not yet under the line of any of the veins, we have had some very good and promising samples from it; the ground in the end is tolerably favourable for driving, and as our machinery is now substantial, and not liable to continual breakages, as formerly, I hope our dispatch in driving the level will be great; to facilitate this work, we have removed Gibson's wheel to Thomas's wheel-pit, to assist us in pumping in case of need, or until the new 42-feet wheel can be got ready. We find after a stoppage of the engine for a few hours only that it requires days to drain or fork the water again, and the arrangement alluded to with respect to Gibson's wheel, will materially help us in this. We have made some experiments on the Magalhaes vein from the 6 to the 14 fm. level, but hitherto we have not met with anything encouraging; we shall, however, continue our exertions, in hopes of yet being successful, as I find by referring to our books that this vein yielded well in June last. In the other points of operation there is nothing interesting for calling for comment, as the captain's report will convey to you all the necessary information.

Gongo Soco.—I have received from the Messrs. Tregoning a letter, stating that their tunnel is now in 95 fms., and that it has intersected and passed through 5 fms. of the jacotinga formation, but from the want of the railroad iron, and other materials (which I fear are still in Rio), they are not able to avail themselves of this auxiliary; they therefore, propose to lessen their force until the rails, &c., arrive at the mines; they intend to go on stamping, but to keep their expenses within the bounds of their produce. I leave here to-day for Gongo to make some arrangements with them. I very much regret that they should have come out in such an unfortunate time, there being no tropeiros to be had (so the agents advise me), on account of the fever.

P.S.—The produce of 4 lbs. 1 oz. 4 dwts. during the last 10 days from Gongo has been derived as follows:—

Goldsmid's stamps	*Lbs*	0	11	2	0			
Great Western		0	8	1	0			
Walker's		1	6	14	0			
Joinville's		0	11	7	0	4	1	4 0

The tunnel up to last evening was driven 101 fms. and has intersected the old workings.

Bananal, July 3.—In my previous letters I have invariably stated what progress was making at Gongo by the Capts. Tregoning; their tunnel is now in the heart of the old workings, and during my visit there last week I suggested to them the propriety of putting in more timber for its better security, which they promised should be immediately attended to. I was very glad to see some good samples (work for the washing-house) taken out of the old mine. In consequence of the non-arrival of the railroad iron waggons, &c., they have reduced their work people to three Cornish miners, 40 labourers, and a few native workmen; this force they consider will be sufficient to keep all their stamps at work. You will be pleased with the produce from Gongo this 10 days, it being altogether upwards of 10 lbs. of gold.

In consequence of the breakage of one of the milliers of the wheel, the water has driven us from the 24 fm. level; consequently, its driving is suspended until the breakage be repaired, and the wheel set to work again—about eight or ten days. The gold returns from Gongo have been regularly forwarded to you; this will be continued, and an account of the progress making in the works shall accompany them. The tunnel has been driven 102 or 103 fms., and a rise up through to the surface has been completed; and the Messrs. Tregoning would now be in a fair way of working, if they had their rails and other materials up from Rio.

It is cheering to see that you are pleased with the progress made in our different works, and I sincerely hope that our bottom levels will prove productive and remunerative. Our new wheel, now in preparation, will enable us to prosecute the mine to a much deeper point than the present deepest level. Good symptoms at Gongo are already beginning to develope themselves. I am very sorry to say that the Bananal Mine has been very poor during the last ten days. We have, however, had some encouraging samples from the 14 fm. level, driving west from Gibson's, which has yielded 4 ozs. 5 dwts. for the washing-house; this, I hope, will lead us to a new shoot, it being in what we consider virgin ground. The vein in the stopes, in the bottom of the 6 fm. level, has much deceived us; its appearance warranted good expectations, but it proved very poor. Magalhaes vein is also very poor and unpromising; in fact, it appears to have dwindled to a mere line below the 14 fm. level; we shall, however, intersect it in the 24, provided it holds down as far, when something more certain respecting it will be ascertained. There is nothing in the accompanying captain's report which calls for explanation; it will inform you how the Cornishmen are, and will be, employed, while the water is in the bottom part of the mine of Bananal. The gold from Gongo, during the past ten days, was derived as follows:—

Mine	*Lbs.*	4	0	10	0			
Great Western stamps		0	5	6	0			
Goldsmid's		0	6	3	0			
Walker's *		4	7	16	0*			
Joinville's		0	5	15	0	10	1	10 0

* Supplied from the old mine formation, through the tunnel.

LINARES MINES.—The following has been received from Capt. Curry:—

Pozo Ancho Mine, Sept. 7.—I have great pleasure in again furnishing you with my monthly report, and to say our proceedings here are going on well. The men in Wilson's shaft have been employed during the present month in taking down the lode on the south side of the shaft, casing and dividing it with timber to the 45, and cutting plat; the south lode, which the men of old passed by at this place, has proved very good, yielding from 3 to 4 tons per fm., the men are still employed cutting plat. San Juan shaft is sunk below the 31 fm. level 8 varas, ground a little harder than last month—present price, 6*l.* per fm. Shaw's shaft is sunk 6½ fms. below the 31 fm. level; here we have a large lode 4 ft. wide, and very promising, yielding about ¼ ton to the fm.—present price per fm. 6*l.*, and ¼ real per arroba for the lead. The 31 fm. level has been driven in the past month 3½ fms.: lode much improved since commencement, at present about 3 ft. wide; we are saving all the "smalls," or finer part of the lode, for dressing; ground favourable for dressing—present price, 3*l.* per fm. The 45 fm. level east has been driven 3 fathoms; the lode when taken down proved rather hard and poor, yielding but a small quantity of lead; lately it has much improved, and the ground much softer, at present the lode will produce ¼ ton to the fm.—present price for driving, 4*l.* per fm. Our tribute department still looks exceedingly well; we have again exceeded our estimate—viz., 90 tons; we have raised 110 tons, but the last being a five weeks' month, and the present being a four weeks', we can promise no more than 100 tons—average tribute as last month, 22s. 6d. per ton, clear of dressing. We have the pumps at work on St. Antonio winze, and the water drained from 2 to 3 fms. below the 45 fm. level. Yesterday we were able to examine some old workings east and west of this winze, and am happy in being able to state that the lode about this place has exceeded our most sanguine expectations. We calculate the lode on an average to be worth 4 tons to the fm.; we were able to drop our pumps about 4 fms. only in this winze, nor are we certain to what depth it has been sunk, as the accounts given by the miners here differ very much; however, we are pretty well convinced that it is no more than 7 fms. It may here be necessary to call your attention to the horizontal section furnished you, you will there see three winzes, marked to east of San Gaspar, in the bottom of the 45 fm. level—viz., San Antonio, St. Pablo, and Las Nuevas. There should have been a fourth—viz., La Manca, which is between San Antonio and St. Pablo, and which is said to be the deepest. There is a communication from St. Pablo to La Manca, but with no other has any communication been effected. They are said to be of different depths, and the workings of a very irregular character, we, therefore, propose to erect tackles over these winzes, and drain the water with manual labour; we shall then be able to determine on the most advantageous course to be adopted, in order to extend a new level under all the old men's workings. This we now purpose doing by carrying down San Antonio winze for 10 fms., extending it east and west with all expedition, and communicating with the above-mentioned winzes as we arrived at them; in the meantime, sinking Wilson's and the other whim shafts with all possible speed, to take away the lead and rubbish. While this is being carried out, we shall give our attention very closely to the best course that may be thought advisable, as to fixing our pitwork, for the future and permanent drainage of the mine. I can only now add, that our engine and pitwork are working beautiful, and our works below and above ground progressing very satisfactorily.

Account of Stock.

Sept. 7th.—Weighed in this week	*Tons*	31 14
„ Sent to Malaga		9 13
„ Remaining at Linares		53 15
„ „ at Seville		141 16
„ „ at Malaga		77 14
Total in store		273 5

NATIONAL BRAZILIAN MINING ASSOCIATION:—

Cocaes Mine, July 12.—We are now lowering the water in the stopes from 16 to 18 in. in twelve hours, or, say, nearly 3 ft. a day, which, if continued, and we can see no reason of doubt, will enable us to resume the sinking about the latter part of the ensuing week.

Cuiaba Mine, June 27.—I am happy to inform you, that our stopes are looking very promising indeed, and with a little patience and perseverance Cuiaba will make a good mine, without the shadow of a doubt.

Cocaes produce, from 15th June to 13th July	*Mks.*	5	1	5	50
Cuiaba ditto, from 18th June to 6th July		4	7	0	6
Total		10	0	5	56

ST JOHN DEL REY MINING COMPANY:—

Morro Velho, June 8.—Produce for May 22,484 oitavas, equal to 216 lbs. troy, from 5330 tons of ore, yielding 4·22 oits. per ton. Stamps working during the month average 94·33 heads. The supply of stone during May has been abundant, enabling us to reject about 328 tons of the most inferior. During the first six days of this month the supply had indeed materially fallen off, having been obliged to remove all our miners from the Bahu, in consequence of the very dangerous state of the baulk ground in the sump-shaft of that mine. The immediate danger is now so far removed, as to have enabled Capt. Treloar to recommence work there, but a great deal of very expensive timber work remains to be done, and that without delay, before the mine can be announced in a safe state.

Cost for May, Rs. 39,754 323, at 29d. per milrei		£4803 12 11
Produce 22,484 oitavas		
Less duty, 5 per cent. 1,124 „		
21,360 oitavas, at 7s. 8¾d.		8221 7 6
Profit		£3417 14 7

June 18.—Gold extracted to date, 6433 oits., from 376·2 cubic feet of sand (result of 10 days' stamping), equal to 17·1 oits. per cubic foot. I was prepared for a falling off in this 10 days' produce, in consequence of the stoppage of our usual supplies of ore from the Bahu Mine from the 1st to the 7th inst., while employed in the dangerous, but necessary, task of taking down large quantities of baulk ground from the back of the Bahu sump-shaft, and having to make up the deficiency from the refuse heap; but the actual falling off has, I acknowledge, exceeded my expectations. Stamps working 17 days, average 95·21 heads. The supply of ore from the mine has, of necessity, been greatly affected by the long stoppage in the Bahu Mine. Since the 7th, however, it has been ample for the requirements of the stamps, enabling us to reject daily 15 to 20 loads of the most inferior.

June 27.—Gold extracted to date 13,491 oits., from 763·41 cubic feet of sand, result of 19 days' stamping, yielding 17·67 oits. per cubic foot. Stamps working 26 days, average 94·96 heads. The supply of stone from the mine, though not so abundant as might have been expected, is still ample, enabling us to reject a few loads every day; but I regret to add that for the last fortnight the quality of the stone has been unusually poor, and it is to be feared will tell most injuriously on the month's produce.

July 8.—Produce for June, 20,750 oitavas, equal to 199·34 lbs. troy, from 5344 tons of ore, yielding 3·88 oitavas per ton. This is the lowest produce we have had for a long time. The decline has been occasioned by the unusual poverty of the stone received from the mine. At the Bahu branch, in seeking to recover the valuable north branch, the quantity of killas latterly taken out has been extremely large, and the quantity of good stone proportionably small. In fact, we have at this point only now arrived at the maximum of killas, and the minimum of good lode; henceforth, however, we may look forward to a gradual, though slow, improvement in this quarter. But in the Cachoeira, both west and middle, a decided deterioration of quality has, I regret to say, taken place; and, though Capt. Treloar is not without hopes that both, and the others, may gradually recover, yet these hopes are by no means strong; and, should they not be realised, you must be prepared for a protracted diminution, as well of produce as of profit—at all events, until the completion of the new stamps may enable us to compensate, by the quantity of ore stamped, for the decrease in its relative value. The stamps working during the month average 95·1 heads.

The supply of stone from the mine has been greatly impeded during the month of June by different untoward accidents, alluded to from time to time in my diary, but more especially by the necessity we were under of removing the miners altogether from the Bahu Mine during several days, while the timbermen were occupied in taking down the unusual quantity of dangerous baulk ground which presented itself in the back of the sump-shafts, and in subsequently securing it with timber; indeed, this latter operation is not yet finished, although it is no longer judged necessary to keep the miners away.

Cost for June, Rs. 44,074 250, at 29d. per milrei		£5325 12 9
Produce 20,750 oitavas		
Less duty, 5 per cent 1,037 „		
19,713 oitavas, at 7s. 8d.		7356 13 0
Profit		£2231 0 3

It is nearly two years since I had to report so low a rate of profit. It is now occasioned partly by the falling off in the produce, partly by the high amount of costs, which affect us every second month in the charges from Rio for export duty, commissions, &c., on the shipments of gold, and partly by the advanced rate of exchange.

UNITED MEXICAN MINING ASSOCIATION:—

Guanaxuato, August 9.—MINE OF RAYAS.—The operations in this mine have been regulated by the course indicated in my last letter, and the general expenses consequently so much reduced, without affecting the returns, that the latter shows a large surplus. The workings of Villa Seca, to the north-west of San Crescencio and San Christobal, have laid open a rich thread of ore, of which 4 cargas were sold this week for $3600, and assayed at 1000 marcs of silver to the monton of 32 quintals, with 240 grains of gold to the marc of silver, thereby giving the latter a value of $15 instead of $8¾; but this extraordinary richness is, I fear, too good to last long, though, in appearance, the thread of ore continues the same underground. July profit, $31,128 1 2.

ALDANA.—Both the cross-cuts of San Diego and Santo Toribio have entered the vein, but as yet without any conclusive result, beyond obtaining a few stones containing blue sulphuret of silver from the latter point, which it is expected will increase in value as the working proceeds, and be also found in the other cross-cut, as also ultimately in the shaft.

PROMONTORIO.—The amount of ore, as well as the sales, have continued to improve.

JESUS MARIA Y JOSE.—The further timbering of the shaft having been completed, the sinking of the latter has been resumed, and its depth has now reached nearly 100 varas.

Report on the State of the Workings in the Mines of Rayas, Aldana, Promontorio, and Jesus Maria y Jose.

RAYAS.—*Buscones.*—The improvement in the sales of buscones mentioned in last month has been continued in this for the same reasons, and as far as depends on the demand for ore there is every encouragement to this class of workmen. They will, however, be shortly driven by the rising of the water from some of the best points; but the produce of these, as we know from the recent trial, could never compensate for the expense of keeping the water at the level it had attained in last month.

Frente de Santo Toribio.—This work has advanced 6·07 varas in hard rock, and without any indication of ore.

Crucero de Bojo de San Diego.—In this work 7·32 varas have been driven without any material change in the appearance of the vein. The rock is hard and unpromising, and should nothing be found in the next 5 varas, it will be advisable to discontinue the work.

Workings in Ore.—In the pozo and frente of San Diego, and Santa Isabel, the ore has become more abundant, and the vein has assumed a less variable character. In the contra cielo, and frente of La Purisima, there has been no marked change in the vein, but the produce may be increased, as the communication with Promontorio, by perfecting the ventilation, will greatly facilitate the work. In the workings of San Crecencio, and San Cristobal, there has been no marked change, except the appearance of a rich hill of ore in the frente of Villa Seca, which is the more encouraging as this is the point in these workings most advanced to the north-west, where there is a large space of solid ground to work on. Workmen have continued scarce, and the average employed by day and night does not pass 55 barmen. The produce of dressed ore remitted to the haciendas is 4254 cargas.

ALDANA.—On the 6th of July the sinking of the shaft was suspended at the depth of 176·26 varas, which is believed amply sufficient to test the vein, as we have, counting from the old plan of the mine, about 90 varas of vein laid open for speculation, and free from water.

Crucero de Santo Toribio.—This work has advanced 9·42 varas in poor vein, with the exception of a stone of good ore occasionally.

Crucero de San Diego has advanced 6·95 varas in hard and poor vein. To every person interested in, or connected with, the mine, it must be a disappointment that we have advanced thus far in the cross-cuts into the vein without finding ore in quantity, such as may be expected in so large a vein; but it should be borne in mind that, in a new speculation, and, in consequence, before the direction of the claveos or deposits of ore are known, it would be rare good fortune at once, in the first cutting into the vein, to hit on the best portion thereof. Santo Toribio cross-cut has now entered the vein about 19 varas, and it is intended very soon to open a level to the north-west, following the best portion of the vein cut through.

PROMONTORIO.—The level of Santa Catalina has advanced 12·36 varas, without any change worth mentioning. San Feliciano has advanced 1·75 varas, and communicated with the contra cielo of La Purisima in Rayas in good ore, and 11·50 varas within the ground of the last-mentioned mine. The ventilation is now good in both mines. On the conclusion of San Feliciano, as above-mentioned, a work was commenced about 25 varas higher up, following the vein to the north-west. This work has advanced 5·41 varas, producing some ore; it is called Santa Lucia. The extent of solid ground in that vicinity is uncertain. The sales of buscones have continued as in last month, owing to the improved quality, quantity, and demand for ore.

MINE OF JESUS MARIA.—Nearly the whole of the month has been consumed in securing the shaft, it being necessary to timber a larger portion than was at first contemplated. The sinking was resumed on the 24th, and on the 31st 5·08 varas were measured, making the entire depth 99·77 varas.—SAMUEL PAUL PARKMAN.

TONDU WORKS.—There is every prospect of improvement at the works of the Glamorgan Iron and Coal Company, called Tondu, the property of Sir Robert Price, Bart. It is currently rumoured that the company contemplate erecting forges and mills, for the purpose of finishing their iron on the spot; also, that they intend making a considerable quantity of tin weekly. These additions, if carried out, will prove a great blessing to the workmen in the locality, and we hope a source of emolument to the spirited proprietors.—The works of Henry Scale, Esq., at Cefn Cwse, Garth, and Briton-ferry, have resumed operations with spirit, after a partial stoppage.—*Swansea Herald.*

An iron light-house has just been finished at Birmingham, for Middleton Point, Saugor Island, India.

ALFRED CONSOLS MINING COMPANY.

At the two-monthly meeting of adventurers, held at the mine on the 10th inst., the accounts were examined and passed, showing—Balance from last account, 548*l.* 5s. 5d.; ores sold (less lord's dues, 111*l.* 7s. 3d.), 1895*l.* 6s. 3d.=2443*l.* 11s. 8d.—By labour cost, June, 351*l.* 10s. 10d.; July, 307*l.* 17s. 11d.; doctor and club, 10*l.* 10s. 8d.; subsist, 85*l.*; merchants' bills, 386*l.* 12s. 9d.—leaving profit, 1301*l.* 19s. 6d.; from which deduct dividend, 1*l.* per share, 1024*l.*—leaving balance to next account, 277*l.* 19s. 6d. The following report from the agents, Capts. White, Thomas, and Hosking, was read:—

Field's (engine-shaft is sunk to the depth of 8 fms. below the 70 fm. level, the lode in which is 6 ft. wide, composed of capel, spar, blende, and mundic, intermixed with copper ore, and has a very promising appearance. The 70 fm. level, east of said shaft, has been extended 24 fms.; the lode in the present end is 5 ft. wide, nearly all solid ore, and which will produce 12 tons to the fm., worth 80*l.* This course of ore has extended east beyond the first discovery in the 60. In the winze just commenced to sink under this level, 11 fms. to the east of shaft, there is a good course of ore, 6 ft. wide, worth 70*l.* per fm. The 60 fm. level, east of shaft, has been extended 40 fms., and has much improved; the lode is from 2 to 3 ft. wide, and worth for copper ore 20*l.* per fm.; this is a new discovery, and looks very cheering. From the fact of no water issuing out of these levels, satisfactorily proves to us that it is running through the lode to the sump-shaft; we therefore anticipate having a continuous course of ore. Wyld's shaft is sunk 9 ft. below the 40 fm. level, the lode in which has a more promising appearance than for some time past; the present price for sinking is 5*l.* 10s. per fm. In the adit level driving west the lode is 2½ ft. wide, composed of lead, mundic, and spar, intermixed with copper ore, and has a very promising appearance. We have lately commenced driving a cross-cut north in the adit level, and another south in the 10 fm. level, for the purpose of intersecting other lodes. In the accounts presented to you this day at the meeting of the adventurers, there is a charge of about 200*l.* beyond our usual two-monthly cost, occasioned by an extra quantity of timber used in casing and dividing Wyld's shaft from the surface to the 40 fathom level—making together 60 fathoms, besides other necessary erections, whim chain, &c.

BRYN-ARIAN MINING COMPANY.

A general meeting of adventurers was held at the Hall of Commerce, on Thursday, the 19th instant.

RICHARD HALLET, Esq., in the chair.

The minutes of the meeting held on the 18th July last, having been read, were confirmed.—The report from the captain of the mine was read, as also the following report of the committee appointed to work the mines:—

Sept. 16.—Your committee have, in pursuance of the resolutions at the last general meeting of shareholders, to report—1. With reference to the sum of 94*l.* 10s., charged in the last account, your committee having seen Mr. Tredinnick, and heard his explanations thereon, are of opinion that, although he may be properly entitled to the amount so charged, as some remuneration for the expenses, &c., incurred by him during his management, yet inasmuch as it appears to your committee that, at the meeting held on the mines, in the month of September, 1849, the then adventurers had agreed to expend 1000*l.*; and the mines were until then in the nature of a private speculation, it would not be consistent for any previous charges for management, or for trouble, to be now allowed; but that such charges should be taken into consideration amongst such adventurers; and that it is only for your committee to consider and recommend what sum should be allowed for expenses since that period. Your committee have, in accordance with such view, directed their attention; and are of opinion that a sum of 31*l.* 10s should be allowed to Mr. Tredinnick in full, so far as the present adventurers are concerned, expressing, at the same time, their wish that the original adventurers alluded to should consider, as amongst themselves, whether Mr. Tredinnick is not entitled to the balance of the sum asked by him.—2. With reference to the mines, certain members of your committee have visited them, and have much pleasure in reporting that they have fully satisfied themselves that, under the very judicious management of Capt. Trevethan, the works are being carried on not only with zeal and economy, but with the view shortly to render them productive. It must be obvious to adventurers that, before a mine can be rendered productive, much time must necessarily elapse. It is their wish that this time should be economised; and now that they find that there is the requisite machinery at the Bryn-Arian Mine for drawing the water, as also a large and powerful crushing machine, and all usual and necessary buildings, dressing-floors, &c., with a water-course upwards of two miles in length, brought home to drive the wheels at the mouth of the adit level, these works and power being sufficient to extend the operations, your committee, when at the mines, intrusted Capt. Trevethan to sink the shaft on the Pensarn lode, and bring home the water-course to this part of the mine. This has been commenced, and a whim is in the course of construction; and the water-course alluded to is being brought home to this part of the mine. Accordingly, your committee have every confidence that, at no very distant period, the mine will yield more than sufficient to pay her cost. As to the working operations, they appear in the weekly reports of the captain. The beneficial effect of the committee's instructions will appear in the captain's report of the 17th inst. The committee cannot close their report without expressing their confidence in Capt. Trevethan, and their opinion that great credit is due to him, not only for the manner in which the works have been conducted, but for his judicious selection of the miners and labourers, whose orderly and well-conducted behaviour is appreciated in the neighbourhood. Your committee may, perhaps, be permitted to state that, on their visit to the mines, they examined the purser's books and accounts, and were pleased with the manner in which they have been kept, and his ready explanations on any difficulties which presented themselves to your committee, unacquainted as they necessarily were, from their short tenure of office, with their minutiæ.

Sept. 17.—In sending you the report of this mine, I have to notice no particular alteration since my last. In the 24 fm. level, driving north from the engine-shaft, we have intersected several small branches of spar, intermixed with portions of jack and lead ore, but nothing as yet to set any value on. The lode in the 10 fathom level, west from the engine-shaft, we have not yet been able to ascertain the exact size of, as we are only carrying the breadth of the level 5 ft. wide, but yesterday we cut in farther north, and still find the lode orey, and believe there remains a large portion of the lode yet standing; the part we are carrying will yield 15 cwts. of ore per fathom—this level has been driven through good orey ground for the last 8 fms. The stope in the bottom of the deep adit level, east of the shaft, is looking much as usual, yielding about 12 cwts. of ore per fm. The stope in the back and bottom of the deep adit level, west of the engine-shaft, is in a lode 18 ft. wide, with a strong mixture of ore throughout, all saving work for dressing; we have here six men stoping, and I expect they will break large quantities of ore this month. Hallett's shaft is cut down to its full size as deep as the 10 fm. level, and the men have commenced sinking; the lode is 6 ft. wide, mixed with ore throughout, therefore the whole of it is saved for dressing; this shaft is carried 10 ft. long, and 6 ft. wide, which will be quite sufficient for an engine, whim, and footway shaft. We shall sample 20 tons of ore this afternoon, and, judging from appearances, I think we may calculate on getting another 20 tons in much less time than the last.

Mr. TREDINNICK, in reference to his charge for conducting the mine, contended it was strictly correct, and that he was entitled to the full amount of his claim, to which the CHAIRMAN assented, at the same time he considered it a question that should be settled by the previous adventurers, as noticed in the report; when, after some further remarks, Mr. TREDINNICK proposed the adoption of the report, which was carried unanimously.

The accounts were submitted, by which it appeared, that the liabilities of the mine were—Merchants' bills, 94*l.* 4s. 4d.; August cost, 218*l.* 0s. 6; September cost at 20*l.* = 510*l.* 4s. 1d.; to which add supposed cost for three months, 600*l.*: making a total of 1110*l.* 4s. 10d. to be provided for, against which there were calls unpaid, 183*l.* 4s. 6d.; cash in hand, 110*l.* 1s. 6d.; 20 tons of ore, 200*l.*=493*l.* 6s. To meet this deficiency, it was unanimously resolved, that a call of 5s. per share should be made, which would produce 600*l.*

A code of rules for the government of the company having been unanimously adopted, the committee were re-elected, with the exception of one gentleman residing in the Isle of Wight, and, consequently, unable to attend regularly, Mr. Hacket being elected to fill the vacancy.—A vote of thanks having been passed to the chairman and committee for their past services, the meeting separated.

GEORGE AND CHARLOTTE MINING COMPANY.

A general meeting of shareholders was held at the mining offices, Tavistock, on the 5th inst. Mr. R. PENROSE in the chair.

The statement of accounts, from 1847 to end of July last, were presented and audited, showing a balance of 24*l.* 10s. 10d. in favour of adventurers, supposing all arrears of calls be paid.—A call of 1*l.* per share was made.—At the next meeting of adventurers the mine will be divided into 1024 shares.

The following report, from Capt. A. Barratt, was read to the meeting:—

The working of this mine has been suspended for a considerable time; but it was resumed about four months since by driving the shallow adit level east, with a view of seeing the lode at the point of intersection with a cross-course, to the east of all the former workings. This object having been accomplished, it was deemed advisable to drive south on its course; and from 8 to 9 fms. have been driven. During this driving, several branches, containing black and yellow copper ore, have been met with, and one more particularly, about 18 in. wide, producing excellent stones of copper ore, which may be seen at the entrance of the level. Two pitches have been also let in the back of the deep adit level at 12s. in 1*l.*; and several tons of ore have been raised therefrom, but of inferior quality. The lode in the present back of the level has every appearance of great promise, and is near a beautiful cross-course. I must say that, looking at the mine as it stands, with a sett nearly 1½ mile in length, on the line with several parallel lodes, and passing through a very favourable country, a more vigorous prosecution of the lode at different points should engage the careful and immediate attention of the adventurers.

LAMHEROOE WHEAL MARIA MINING COMPANY.

A general meeting of adventurers was held at the offices, King-street, Cheapside, on the 19th instant, when the balance-sheet was presented, showing—Liabilities, 576*l.* 4s. 5d., and assets, 473*l.* 10s. 10d.: being a balance against the mine of 102*l.* 13s. 7d.—It was resolved, that the purser should give notice to shareholders in arrear upon 122 shares that the same would become absolutely forfeited if not paid up by the 26th inst.—The sale of a small parcel of tin from the lode in the 60 fm. level, to the Union Smelting Works, Beeralston, realised 45*l.* 7s. 6d. per ton, being, as stated, the highest-priced tin of the district, and which was deemed most satisfactory: 5 tons of the ore rendered 6 cwts. 2 qrs. 14 lbs. of tin.—In consequence of the absence of Mr. Murray, the meeting was adjourned for 14 days, when a full report on the mine and its prospects by that gentleman will be forthcoming.

The following report, from the purser and Capt. Tabb, was read:—

Sept. 18.—We fully expected to be able to inclose you the invoices of the tin sold by this post—Capt. Tabb having been promised them to-day. We have the satisfaction, however, of being able to state that the tin rendered to market has fetched 45*l.* 7s. 6d. per ton—being, in fact, the highest price realised in this neighbourhood. You are aware 7 tons of the lode were taken from Lamherooe to Redmoor; but, owing to the oven then being so defective, 5 tons only were fused and rendered marketable—the other 2 tons being returned to the mine. The 5 tons produced, as you will perceive by the invoices when they reach you, 6 cwts. 2 qrs. 14 lbs. of tin. Allowance must also be made for the slimes and waste in dressing, and which cannot be estimated at less than 2 cwts. Had we been in a position to dress the 7 tons on the mine, we might fairly calculate on the produce being from 11 to 12 cwts. of tin. This result must be considered highly sa-

tisfactory—no other lode in this vicinity producing near so much tin from a given quantity. The stopes in the back of the 60 still hold good for tin; and in the end going east the branches seem to be falling together, with every prospect of making a good lode in that direction. The cross-cut north towards the Wheal Maria lode is progressing as fast as possible; and in the new shaft, sinking east of the cross-course, the men are working vigorously, and we expect will reach the 20 fms. by the time appointed—viz.: October 7th. At Davey's shaft, in the 50 fm. level, the cross-cut north is progressing slowly—the men being impeded by the great quantity of water gushing from the end, betokening that we are close on the lode; in the cross-cut south there is no alteration.

SOUTH PLAIN WOOD MINING COMPANY.

A general meeting of shareholders was held at the Oriental Hotel, Vere-street, on Monday, the 16th instant,

THOMAS CAMPLIN, Esq., in the chair.

The accounts were presented and passed, of which the following is an abstract:

Balance of account, passed 17th July last	£	76	11	7	
Call made that day	1000	0	0	—£1076	11 7
Cost for June	142	14	8		
Ditto July	293	1	4		
Paid landlord, on account of damages on Horsey Hill sett	20	0	0		
Paid Capt. Collins, balance of purchase for South Plain Wood	110	0	0		
Lessors' solicitor, for lease and counterpart of Horsey Hill sett	49	16	8		
Paid contractors, on account for leat	56	0	0	—£ 671	12 8
Balance in hand				£ 404	18 11

The directors reported that, since the last general meeting, and in pursuance of the resolutions then passed, they had obtained a lease of the land necessary for the formation of the leat; and that, during the last two months, the company's agents had been actively and principally employed in getting the leat cut, and the water-wheel and requisite machinery erected; and both were very nearly completed. That at the same time the mining operations had been carried on so far as they could be previous to the erection of the machinery; and the committee had great satisfaction in placing before the shareholders a most favourable report of the mine, which they had that morning received from Capt. Stephens. That although the committee had a balance in hand of 404*l.* 18s. 11d., yet it was liable to the costs for August and the current month, and to the amount of the contract for erecting the water-wheel and the requisite machinery, balance of contract for leat, and other charges—the greater part of which would have to be met before the next two-monthly meeting; and the committee, therefore, proposed a call of 10s. per share.—The directors' report was adopted, and ordered to be entered on the cost-book, and a call of 10s. per share was made

The following report, from Capt. Stephens, was read to the meeting:—

Sept. 14.—Since my last report the mine is greatly improved. We have stopped driving the adit end on Nicholson's lode, and we are rising against the whim-shaft, and expect to hole it next week, when we shall continue driving. We are still driving the adit end on the caunter lode; this lode is improving very much; it is 2½ to 3ft. wide, composed of mundic, peach, spar, yellow and grey ore; I am glad to tell you that I broke some very good stones of ore out of this lode to-day, and have sent a box of some to you, which I hope will give you great satisfaction. There is every appearance that we shall have a good lode of ore in going down. I can tell you it is a very kindly mine. I have dialled the ground, and I find that end to be nearly forth to the engine-shaft. We have a 9-feet cross-cut to drive north to the shaft, which I hope we shall do in a fortnight. The shaft is 15 fms. 4 ft. 6 in. deep; I find it is down to the adit level. We have stopped sinking this shaft until we hole it, as by doing so we shall save a great many pounds. The lode will come into the shaft about 3 fms. under the adit, then we shall sink this engine-shaft on the course of the lode with all speed. We have completed the bob walls, and put the bob in its place. We have also completed the wall, and are getting on with the leat, and expect to bring the water to the mine the latter part of next week, and hope to put the wheel to work in a fortnight. We are getting on very well with Gabriel's engine-shaft on Horsey Hill; it is down 4 fms. 3 ft.; we intend to sink this shaft 15 fms., and then drive a cross-cut to cut the lodes, and hope to find some good lodes of ore. Since Mr. Peters and Mr. Thomas were here, we have broken some good stones of ore out of Camplin's lode, on Horsey Hill side, and by the appearance of this lode we shall have a good bunch of ore in going deeper, so we have every appearance of having a good mine.

TREVISKEY AND BARRIER MINING COMPANY.

At the two monthly meeting of adventurers, held at the mine, on the 16th inst., the accounts were examined and passed, showing—

TREVISKEY.—Copper ores sold (less lord's dues, 302*l.* 3s. 5d.), 3324*l.* 0s. 5d.; tin ditto, 24*l.* 16s. 10d.; materials sold, 66*l.* 11s. 4d. = 3415*l.* 8s. 7d.—By labour cost for June and July, 731*l.* 16s. 10d.; tribute, 341*l.* 19s.; merchant's bills, 300*l.* 14s.; Tresavean adventurers, water, 237*l.* 0s. 4d.: leaving profit of 1801*l.* 18s. 5d.; to which add balance last account, 2*l.* 0s. 5d. = 1803*l.* 18s. 10d.; from which deduct dividend of 15*l.* per share, 1800*l.*, leaves in hand, 3*l.* 18s. 10d.

BARRIER.—Tribute, 2*l.* 3s. 6d.; income tax appeal, 2*l.* 5s. 10d.; stationery, printing, postage, &c., 5*l.* 2s. 6d.; sundries, 17s. 7d. = 10*l.* 9s. 5d.—By ores sold, 3*l.* 0s. 9d.: showing loss, 7*l.* 8s. 8d.; to which add balance last account, 59*l.* 6s. 5d., leaves due to purser, 66*l.* 15s. 1d.—It was resolved that the recommendations in the manager's report be followed out, and that they be requested to follow up the application for a new sett at abated dues, with the extension ground to the east.—[The agent's report appears among the Mining Correspondence.]

WELLINGTON MINING COMPANY.

At the two-monthly meeting of adventurers, held at the mine, on the 11th inst., the accounts were examined and passed, showing—Balance last account, 88*l.* 12s. 6d.; copper ores sold (less lord's dues, 63*l.* 0s. 4d.), 1071*l.* 5s. 6d. = 1159*l.* 18s.—By labour cost for May, 291*l.* 6s. 6d.; ditto June, 341*l.* 19s. 10d.; merchant's bills, 243*l.* 5s. 3d.: leaving balance in favour of mine, 283*l.* 6s. 5d.; from which a dividend of 1*l.* per share was paid, leaving in hand, 27*l.* 6s. 5d.—The mine was divided into 1000 shares; and the following report, from the agent, was read to the meeting:—

Sept. 11.—The cross-cut in the 50 fathom level is driven 7 fms. north of the engine-shaft, ground good for driving, and I expect by the end of the present week to see the lode in this level. The lode in the 42 fm. level, west of the engine-shaft, is 18 in. wide, and has a very promising appearance, producing some rich stones of yellow copper ore. In the 42 fm. level, east of Parcoily shaft, the lode is 1 ft. wide, worth 8*l.* per fathom for copper and tin; we have every reason to expect an improvement here, from the ore gone below the 32 fm. level east of this end. The 32 fm. level east is suspended for the present. The ground in the cross-cut north of the engine-shaft is fairer for driving than it has ever been from the commencement, and is within 50 fms. from the north lode. In driving east on the north lode in the adit level there has within the last week been a little improvement, lode 8 in. wide, with a little copper mixed with spar; this lode may be called No. 2 north; the adit west on this lode is for the present suspended, and the men are put to sink a winze under the level, if possible, before the wet weather sets in—the indications in driving this level west have been good. The lode in the adit level, west of western whim-shaft, is 1 ft. wide, principally composed of spar, mixed with native copper, which I think speaks of something better for us; the lode in the adit, east of said shaft, is 2½ ft. wide, worth for copper 7*l.* per fathom. The lode in the 10 fm. level west of the shaft is 15 in. wide, worth for copper 5*l.* per fathom. The 10 fm. level is driven east of this shaft 28 fms.; the lode for the most part is 18 in. wide, and worth on an average for the whole length from 7*l.* to 10*l.* per fathom, and the whole in the present end is 9 in. wide, worth 4*l.* per fathom for copper; 23 fms. east of this shaft we have a winze sinking under the 10 fm. level, lode from 1 to 2 ft. wide, worth for copper 14*l.* per fathom; this shaft is sunk 3 fms. below the 10 fm. level, and the lode is now in the bottom nearly 4 ft. wide, worth for copper from 30*l.* to 40*l.* per fathom—this lode may be called No. 1 north of the engine lode. I am glad to say the mine never at any time looked so well as at the present; there is at surface about 180 tons of copper ore, and a fortnight to our next sampling. I think the quantity will not be less than 200 tons.

WHEAL MAY MINING COMPANY.

A special general meeting of this company was held at the Rose and Crown Inn, Old Broad-street, on Friday, the 20th inst., for the purpose of receiving Mr. Hopkins's and other reports on the character and prospects of the mine, and on general business.

The SECRETARY (Mr. Peet) read the advertisement convening the meeting, and also a report from the finance committee. The treasurer's account showed a balance of cash remaining in his hands of 21*l.* The amount remaining unpaid for labour and merchants' accounts on the July and August cost-sheets was 172*l.*, which sum included the charges for pumps and other machinery erected since operations were resumed on the mine. He then produced to the meeting Mr. Hopkins's report, and informed the shareholders, that from the unsatisfactory nature of it, he had written to Mr. Hopkins immediately after its receipt, requesting him to suspend his judgment for a short time, and consider the report as not having been forwarded, as the conclusions he arrived at were so totally at variance with the corroborated testimony of the captain and other disinterested persons, who had strongly pronounced in favour of the mine. The reply of Mr. Hopkins exhibited strong feeling, and in no way establishing the position he had taken on the questionable character of silver and copper existing in the same lode.

Mr. ROWLANDSON entered into an elaborate explanation as to the nature of the samples of ore recently forwarded by the captain, and his opinions were fully confirmed by a letter from Mr. Jenkin (of Mr. P. N. Johnson's establishment), who had assayed a portion of the last specimens raised from the engine-shaft, and found a satisfactory proportion of both copper and silver.

After some desultory remarks, it was proposed, and unanimously agreed, that the secretary should at once call a meeting of the shareholders, for the purpose of opening a new cost-book, and declaring the mine to consist of 2500 shares, instead of 5000 as originally intended; and the contemplated alteration would place the mine on the strictly true Cost-book Principle.

The shareholders generally expressed themselves highly satisfied with the proposed measures, as likely to provide sufficient funds for working the mine to advantage, and it was arranged that on Friday next the meeting should take place for opening the new books, according to the resolutions which were passed.

EXMOOR WHEAL ELIZA.—A meeting of the London adventurers was held on Tuesday, the 17th inst., at Mark-lane, for the purpose of confirming the resolution of disposing of the forfeited shares—Capt. Richard Moore having been deputed to come to London for that purpose, who also gave a verbal report of the workings already carried out, and suggested the propriety of continuing operations on the south lode in the 24 fm., as the slide appears to be getting near; and the lode now producing fine stones of yellow and black ore, is indicative of approaching a lode of copper; and feeling confident that, ere long, this mine will present equally as cheering prospects as any in Devon or Cornwall, at which the shareholders seemed in high spirits, and with the determination of carrying out this important undertaking, several of them agreed to increase their interest, and also that the balance of the shares should be placed in the hands of Messrs. Brown and Co., of Fenchurch-street, for disposal.

WHEAL TRESCOLL—MANAGEMENT.

SIR,—In your last Journal, Capt. Webb makes the following remark—"Mr. Hopkins says, that this mine, if managed well, would make a good paying one, &c. I should feel obliged if Mr. Hopkins would show wherein the mine is not properly managed."

In reporting on a new mine, it is essential to make such an observation, inasmuch as the profits often depend more on the management than on the mine itself. I made no allusion to the *past*, nor to the cause of the mine having been so long in such a state, nor to the want of means, plans, &c.; but simply stated that, "if managed well, it would make a good mine, to the extent of its capabilities." Meaning, of course, *future* proceedings.

I took for granted that Capt. Webb was the local agent, who had not the power himself to do what was wanted, and that he required the sanction and aid of the financial managers to effect what is required, so as to bring the mine early into a regular profitable state.

However, as he requests me to make a public reply to his remark, I shall do so, by describing, not the management of the Trescoll Mine, but what *I* call a mine well managed; and, by comparison, Capt. Webb will be able to see how much remains to be done to bring his mine into such order.

Correct plans and sections kept *on the mine*, showing the progressive state of the workings, to avoid guess-work, and to be a check on the monthly settings, on which future operations may be delineated, and other points connected with the prospects and permanency of the concern.

A small office, however humble, kept in due order for the deposit of such plans and books—so that a proprietor, on calling, may at a glance judge for himself the real state of the mine, not by words, but by deeds.

A store-house, for all the materials, an account of the receipt and delivery strictly kept up, and the key always in the keeping of a responsible person. No light and expensive materials left exposed.

The wear and tear of machinery and materials closely watched. The stamp-heads worn fairly, and performing proper duty to the shaak, by the usual attention of good stampers.

Dressing Department.—In a tin mine this is one of the most important parts of the business, to ensure the welfare of the undertaking. Many of the tin mines are working at a loss for the want of more attention to this, and more suitable arrangements of the stamping and dressing machinery. The minera may be better separated underground, so as to avoid mixing the rich clean tin with the poor stuff for stamping. Rich tinstuff with light waste may be separated and cleaned to a great degree directly as it comes from the stamps, by judicious arrangements of incline planes, &c., with less loss, and considerably less expense.

These are a *few* of the points which are strictly observed in all well-managed mines. When Capt. Webb has brought his small establishment into this state, I shall congratulate him,—and then, and not until then, give an opinion on his management.

Having such a rich tin mine, which he challenges against any other in the kingdom, and now appointed as the "managing agent," there is nothing to prevent Capt. Webb placing the establishment on the usual respectable footing of well-regulated and profitable mines, and he will, doubtless, avoid the proverb of the cap being applicable to him.—EVAN HOPKINS: *Tavistock, Sept.* 16.

WHEAL TRESCOLL, OR THE "MODEL MINE."

SIR,—It appearing in your Journal of Saturday last, that the managing agent of this mine wishes to know how it is mismanaged, I beg you will insert the following:—There is no printed statement of the accounts of this mine, and the reason given is, that so many of the shareholders are behindhand in paying up their calls; that, owing to this, the purser cannot pay the accounts of the mine when due; that the coals, timber, &c., supplied to the mine are most extravagantly charged, and also very bad in quality, in consequence of the parties furnishing the articles not being paid their accounts when due. Also a large outlay must, and will be required, before any business-like or economical management can be done in the stamping, &c., at the mine,—another steam-engine, &c., being absolutely necessary. As to the paragraph in your paper of Saturday, that the mine will pay dividends in the spring, that is quite clear to any person acquainted with the mine to be utterly impossible, unless the present management is completely changed. The public, and also the shareholders, must be highly gratified at the candid, clear, and faithful report of Mr. Evan Hopkins, concerning this beautiful specimen of a mismanaged *Cornish model mine.*—A MINE INVESTOR: *Sept.* 18.

THE MANAGEMENT OF MINES.

SIR,—Seeing public attention being so much drawn to mining from different parts of the kingdom, it is very necessary, for the benefit of legitimate mining, to acquaint those who are disposed to invest that they must not plunge into such speculations too hastily. If they mean to gain, or even to insure that the money be properly laid out in exploring the mines, they must ascertain first the competency, and character of the parties to carry out the work proposed. I speak from experience dearly bought. I have been a committee-man and a director of many mines for several years, and have long learnt the difference between men appointed to carry on business of this kind. In some mines it is quite a sinecure to be on a committee. So clear is every thing laid before us—not the common rigmarole reports for the occasion, and mere £ *s. d.* affair, as is too often the case, but also all the essential details duly described; and so satisfied we feel with the masterly style in which every thing is being carried on, from the captain to the purser, that we are always pleased with the proceedings, in spite of repeated calls and gloomy prospects.

I am sorry to say such is not the case in some mines taken up of late with which I am connected. Everything appears to be in confusion—a kind of flash in the pan. We scarcely know what we are doing, for the want of the usual plan of action laid before us in starting.

It is well known that there is a great difference in captains, with respect to their capabilities for managing A man may be an excellent miner, and yet totally useless as a manager. We frequently find the want of engineering skill in the system adopted for the extraction of the mineral, and thus incurring a permanent increased cost as compared to the produce.

It is true, when we hit on a rich mine, many extravagances and irregularities are looked over; and however deficient the captain might have been, he is held up for a time as an oracle by those who do not know better.

When we reflect that out of about 260 mines, we scarcely have 40 paying ones, the mining public have a right to look more carefully into such matters, and to see whether by a little more prudence, care, and economy, the number of paying mines can be augmented. The mine captain cannot increase the quantity, nor render the ore richer than Nature produces it in the lodes; but a greater amount may be often extracted at a less cost in many cases, had the captain sufficient judgment in the matter. I have been induced to make the above observations, in consequence of the loose manner in which some of the young mines are now carried on, and the remark made in your last Journal by your mining correspondent—viz.: "The impropriety of a committee interfering with an agent," &c. What is the use of a committee, but to check abuses? Good steady men of business and capacity are never interfered with by the committee, more especially when they strictly attend to the duties already laid down. Mining, of all other business, requires the greatest order, judgment, perseverance, and constant attention to it; and those who fancy that they can carry on mines without such discipline, will rue the time they meddled with it.
Sept. 18. A COMMITTEE-MAN.

THE EXMOOR WHEAL ELIZA DISCOVERY.

SIR,—On looking over your interesting columns, I find a long report on the favourable rock formation on Exmoor, for producing copper. If Nature has favoured this wild extensive district with some of her large mineral deposits, it would be found very beneficial in causing people to collect there, to aid in bringing it into cultivation; and, notwithstanding Mr. Knight's spirited outlay, if something of this kind is not discovered, I fear it will require centuries to bring it into that state. This favourable report is certainly very encouraging; I do not wish to say a single word to prejudice the interest of any party, who have, or would, speculate on this forest, and only reply to your correspondent, as he possesses such a keen eye, as enables him to say the 36 fm. level cannot fail to produce large quantities of copper; as also, that "when they arrive at this large quantity of copper, which must be the result," is certainly very strong language. I think a man of this description should not be taken advantage of by any party. Why not give the public his name? which would enable them to take the benefit of his penetrating vision, by which he can see 10 *fathoms* through the earth, they might then call him to their assistance. Such men, if they authenticate what they say, are *invaluable*, and should not be lost sight of; let them stand or fall by their works, and this must shortly be tested. The 36 fm. level is not far distant; if found correct, let him come out with all his knowledge, or fall, as an erring man and unworthy of further notice. There are but few men that excel in more than one thing; notwithstanding his having keen eyes, that penetrate into these dark regions, I am inclined to think that, when he is called on to act in the sun's rays, they are deceptive to him. As he tells us of granite on Exmoor, did he fall in with Mr. Matthews's clod roller, which is the only thing like granite that I know of in the forest? As regards the valuable run of lime rock, had he called on Mr. Knight, and pointed it out, I have no doubt but he would have given him the reward so long offered for that valuable discovery, and have treated him handsomely.

Every man who knows Exmoor must be aware that there is no lime rock yet discovered there, with the exception of a small vein on the eastward, near Exford, which is many miles distant from the mine.

With regard to the riches of Combmartin, he might equally as well have made reference to Devon Consols having its effect on Abergwessin, as Combmartin on the mine on Exmoor, where the strata has changed upwards of fifty times within the distance. It is becoming too much the fashion of the day for those who visit mines to withhold their names, and pretend to reveal these hidden things, without showing reasonable grounds for the deposits being found at a certain depth; and many others, who are reporting and pretending to be disinterested persons, leaping through half-a-dozen mines in a day, and holding out the most favourable reports as to the promising appearance of the lodes, when, in point of fact, they do not know a lode from a *grinding* stone, if one-half was covered with earth. These men are not the miner's friends, they only injure *legitimate* mining. Let them give the public their names, and no man will attempt to rob them of their real merit.—N. ENNOR: *Wivelscombe, Sept.* 16.

SOUTH CARN BREA MINE.

SIR,—I believe that every judicious and candid person who noticed the recent dispute respecting a new mine in the vicinity of Redruth, must have perfectly concurred in the propriety of the discussion being put an end to, as far as it was carried on in the columns of your Journal. It is quite true that, when opinions are so dissimilar and so opposed, as in the case spoken of they were, it is of all things desirable that they should find some means of extensive publication, in order that the truth, wherever it may be found, should be brought out of the darkness in which, in mining as in every other pursuit, she is occasionally concealed, and honoured according to her inherent excellency. But there must be limits even to the elucidation of truth; and when it is endeavoured to make a public journal the vehicle either of private interests or of personal animosities—and, moreover, the object seems to be not the discovery of truth, but the condemnation of a rival—it is time the moderator of such polemical pens should step in, and silence both parties. I would be no party to the smallest and the most transient revival of such a dispute; and in pointing attention for a moment to the new mine in question, I am only vindicating the course which you, a short time since, took in respect of it, as well as the interests of those who, chiefly upon your representation, bought pretty freely into South Carn Brea. It will give both them and you some gratification to know that the sett is realising the best expectations, and justifying the highest hopes that were either expressed or entertained respecting it. She is giving every assurance that she will be equal to the very best of that brotherhood of mines which immediately surrounds her; and there can be no greater success, no higher praise spoken of her, than that. You know my address, and can, if you think necessary, put parties in communication with me, who wish to know more of the resources and prospects of South Carn Brea.—VERITAS: *Sept.* 19.

BEDFORD UNITED.—These mines are in the parish of Tavistock, on the eastern bank of the River Tamar, and held on lease from the Duke of Bedford for 21 years (12 unexpired), at 1-15th dues. Conducted on the Cost-book Principle, and meetings held in London every two months. In 4000 shares, 2*l.* 6s. 8d. per share paid up. Market value, 4*l.* 5s. to 4*l.* 10s. The sett, which in extent is 890 fms. square, has numerous lodes running through it, the principal of which are the Tavistock, Marquis, Ding Dong, Delves Kitchen, Luscombe (the latter three being the famous Gunnis Lake lodes), Chimney Rock, and Impham. With the exception of Marquis, none of these lodes have been explored below the adit. The Tavistock lode yielded near the surface 40 tons of ore, Ding Dong 24 tons of tin, and Luscombe, under an old company, upwards of 12,000*l.* The present company concentrated their forces on the Marquis lode, from which ores have been returned to the end of August, to the value of 58,378*l.* 8s. 7d. Out of this amount 7000*l.*, or 1*l.* 15s. per share, have been paid as dividends from profits to the shareholders; the remainder has been expended in laying open the mine, and in machinery. The present monthly returns, made from discoveries during the month, are about 120 tons, yielding about 6*l.* 10s. to 7*l.* per ton, at a monthly cost of 450*l.* The dividends paid from the 1st January this year to the end of August have amounted to 3000*l.* The machinery consists of two water-wheels for pumping, and one for stamping ores, and one steam whim-engine, recently erected. The water-power is derived from the Tavistock Canal, at a nominal rent of 5*l.* per annum, and is sufficient to work the mine to a considerable depth. It is estimated that in the Marquis lode from 15,000*l.* to 18,000*l.* worth of ores are discovered, and lying in reserve; and, whilst regular returns may be confidently relied upon from this source, a cross-cut, in a deep level, is in course of driving towards the Tavistock lode, and which, if found rich, would double the value of the company's property. It is the intention also, at a very slight addition to the monthly cost, to drive towards the Delves Kitchen lode, which, at shallow levels, presents very favourable indications.

WEST PHŒNIX MINE.—This sett is situate in the parishes of Linkinghorne and St. Cleer, adjoining the Phœnix Mine, and is productive for tin and copper. It is divided into 1024 shares, 550 of which only will be issued to the public, on which a deposit of 2*l.* per share is to be paid, the remainder being reserved to the owners of the mine, which is conducted on the Cost-book System. Calls are not to exceed 1*l.* per share every two months, and it is expected that before 5000*l.* have been expended the adventure will prove profitable. From a report, by Mr. Evan Hopkins, it appears that the lodes passing through this property are the continuation of the Phœnix lodes, westward; but as they leave the pale brown slate of the latter mine, and enter into the schorlaceous granite of the Withybrook, they become more productive of tin than copper. The granite is here traversed by many soft channels of ground, and also by large veins of schorl rock, which are more or less impregnated with tin. The lodes in this sett are intersected by the West Caradon cross-courses, and are of considerable magnitude, judging from the ancient superficial workings. That large quantities of rock containing tin may be extracted from this sett at a moderate depth, and probably a large amount of the black and grey copper ore also, on the east side of the main cross-course. This mine should be worked in very wide excavations, as he thinks the lode will be found in numerous branches; and a more economical mode of tin dressing should be introduced than the ordinary method employed in the county of Cornwall; and by these means it may be rendered a very valuable property. This testimony is supported by Captain S. Seccombe, and J. Chapman, an old miner, 80 years of age, who has known the mine all his life, states that the old men worked the mine to the 13 fm. level, but could never get any deeper for the water. He says every old miner in the parish knows that there is a solid course of tin in the bottom of the mine 14 in. wide, each side of the great cross-course, and, according to the present price of tin, worth probably from 90*l.* to 100*l.* per fm.; that there are also large deposits of copper, which in old times were not looked after, their value not being known.

MINING INDUSTRY AROUND LLANIDLOES.—This borough is weekly progressing in importance, owing to the enormous large mining works carried on, which are a source of considerable wealth, apart from the local trade—the manufacture of Welsh flannel. There are now six companies carrying on mining works in the country, one of which is immediately adjoining the town, and three more within a distance of two miles. One of the latter, Penclyn, is very productive, yielding a clear profit of 6000*l.* per annum. Another, Bryntail work, presents very flattering prospects to its proprietors. Last week they had one solid ton of ore, which was too large to take out through the level without breaking it, and of a very superior quality. The company carrying on the Nantmelin work are now erecting machinery upon a very large scale, and when put in operation it is expected they will raise abundance of lead and copper ore. The Geufron work, which is also in this vicinity of the town, has been taken by a wealthy company, who intend putting up machinery, and, if it turn out according to anticipations, this will be very productive in copper ore. The number employed in the working of these mines is about 400, and the aggregate monthly payment to the men is about 1000*l.*, a most important addition to the trade of the town.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

Whatever influence the old adage—that there was "no copper east of Truro-bridge"—may have had in checking the development of the immense untried resources of Cornwall, we cannot say: the energies of the present day are not to be tied down by such futile assertions; and ere long we hope to record another successful result of the spirited and well-directed trial now being made in the granite district of St. Stephens. An enterprising section of the Mineral Court adventurers, whom we cannot fail to congratulate on the reward of their steady perseverance in that tin mine, have lately set on foot Wheal Violet Copper Mine, and which, even now, holds out appearances that should satisfy the most sceptical. At the shallow depth of 13 fms. below the water-wheel, stones of yellow copper ore are being raised, that would safely compare with those from any mine in Gwennap from a much greater depth. There is the command of water-power to take them to a 50 fm. level, so that the mine can be economically worked when the lode is cut in the 20 fm.; and it is confidently expected they will be in a condition to make returns equivalent to their expenses, with the fair promise of ere long rivalling the most productive mines of East Cornwall.

HAWKE'S POINT.—At the western part of this mine, named Wheal Cubitt, a splendid lode has just been cut in the 20 fm. level, from 3 to 4 ft. wide, which is likely to be very productive; and at the eastern part, where they have driven an adit from the sea level upwards of 50 fms. towards the Cubitt lode in a hill, and where the adit is now 40 fms. from the surface, they have also cut a fine copper lode, about 3½ feet wide: both discoveries are of a very important character, and the sett being at least a mile in length on the course of these lodes, not only a very productive but permanent mine may be calculated upon.

WHEAL TREBARVAH (formerly worked under the name of Wheal Jane) is situate in Perranuthnoe, near Marazion, on land belonging to Messrs. Richards, Hosking, and Christopher, and in which, we are informed, several copper lodes have been discovered, and many tons of both tin and copper returned therefrom. The workings are about to be recommenced by a company of gentlemen resident in London and Cornwall, under the name of Wheal Trebarvah. Several of the adventurers, accompanied by their engineer, Mr. Tredinnick, lately met on the mine; and, after inspecting the sett, &c., determined on the site on which to erect an engine-house, and the engineer was instructed to procure an engine of from 30 to 40-inch cylinder, which is considered ample

to enable the adventurers efficiently to explore the mine. It is confidently anticipated that the undertaking will prove a source of wealth, which we hope may be realised. Great Wheal Neptune, an adjoining sett to Wheal Trebarvah, is said to have, some twenty-five years since, yielded ores to the adventurers to the tune of 300,000*l.*

MILL POOL MINE.—The engine-house is nearly completed, and all other works are in a satisfactory state of forwardness. The engine-shaft is prepared and sunk to the required depth for the present, and we expect a great part of our new engine from Hayle Foundry will be on the ground in a few days. Another important lode has been cut in this mine last week, and, so far as it has been seen, of considerable promise.

CARTHEW CONSOLS.—On Monday a superior steam-whim engine was put to work here, and continues to perform exceedingly well; it was erected by Mr. M. Loam, of Liskeard, on whom it reflects the highest possible credit, being considered one of the finest pieces of machinery in the county. The buildings and surface works are also very satisfactory.

GOGINAN, SEPT. 18.—Hearing of the discovery at Allt-y-Crib, I went over to look at the nature of the stuff; I found lumps of ore-stuff coming out of the level 10 cwts. in a piece, one-half of which was solid. The formation of the ore was in belts, or ribs, of solid lead, 6 or 7 in. broad, with smaller belts of carbonate of lime, 2 in. wide, and bands of blende. I have not seen finer lode stuff in Cardiganshire.

At Daren, I was underground yesterday; the lode in the new adit is taken down for 3 ft. wide, 15 or 18 inches of which is composed of fine silver-lead ore and copper; the ribs of lead are from 3 to 10 in. wide. The crushing-mill went to work yesterday, and returns may now be looked for with regularity.

At Allt-y-Crib, a 28-feet wheel, 6 feet wide, with crusher, is contracted for; and these two mines may be considered amongst the certain mining properties of this county, evidencing the fact, that a mine may be many times suspended, without being exhausted.

I hear the ore is good at East Daren, and that the discovery the other side of the mountains, at Bryntail, goes on exceedingly well, and that rocks of ore, of great size, are coming from the mine.

THE MINING INTEREST.

A correspondent has been at considerable trouble in calculating the value of shares in the different mining companies, comprised in our share list, at the prices at which they were originally issued, and also their current value. At present, we have not space for publication of the table, but we append the results which have been arrived at. There are 253 British mines named in the table; of these 33 have not both the prices quoted, and, deducting the iron and coal mines, and slate quarries, there remain 212 metal mines, of which the original and the actual value are there given.

The analysis of these tables gives the following remarkable results:—

	Number of companies. Prem.	Dis.	Par.	Original capital.	Present value of shares.	Comparative actual value.
79 copper mines	54	23	2	£826,764	£1,433,931	173 per cent.
53 lead & silver-lead	36	10	7	394,020	599,734	152 „
30 tin mines	22	7	1	184,712½	247,047	133½ „
41 mixed (cop. and tin, copper and lead, &c.	25	13	3	553,528	728,153	131 „
9 not specified	5	2	2	18,323½	13,972	76 „
Totals	142	55	15	£1,977,348	£3,022,837	153 „

Thus it may be seen that in every separate description of metal mines the great majority of the shares are at a high premium, and that the aggregate value of this description of property is now 153 per cent. of the original—that is to say, it is worth more than half as much more than the price at which the shares were originally issued.

A curious circumstance may be observed in these tables—that in most cases it is those companies who have commenced with large capitals that are now at a discount. If, for example, the companies whose capital originally exceeded 15,000*l.* are omitted from the table just given, it will show much greater premiums on the remaining ones; thus:—

	Number of companies. Prem.	Dis.	Par.	Original capital.	Present value of shares.	Comparative actual value.
65 copper mines	49	15	1	£298,490	£1,034,088	346 per cent.
47 lead and silver-lead	35	7	5	206,470	470,484	228 „
28 tin mines	21	6	1	144,096½	213,267	148 „
30 mixed (cop. and tin, cop. & lead, antimony, &c.	23	4	3	147,748	430,416	291 „
9 not specified	5	2	2	18,323½	13,972	76 „
Totals	133	34	12	£815,128	£2,162,227	265 „

I am much inclined to deduce from this, that the reason of the shares in so many of the coal and iron companies being at so great a discount is, that the projectors commenced with too much capital, for what can be more simple than to estimate beforehand the profits in such undertakings, if due care is used in the execution of the plans proposed? and, in a great degree to the same cause I fancy may be attributed the so frequent failure of mining speculations abroad, as witness the weekly quotations of those in your list of foreign mines, in which, with the exception of the St. John del Rey gold mines, the little company, entitled New Linares, is the only one in which the shares are at par.

It is not easy to institute a full comparison with railway companies, at least I do not possess the requisite data; but it is a significant fact, that the *Times* of the same date as the above table (Sept. 7), gives a list of 124 descriptions of railway scrip, of which 84 are quoted at a discount, and of the remainder 19 are at a premium only, in consequence of their being guaranteed or preference shares; and when I say premium, it should be remarked, that in most cases this is exceedingly small, and with the exception of that phenomenon (the Great North of England) there is not one railway which obtains double the price at which it was issued.

This alone would suffice, if it were necessary, to establish the great superiority of mines over railways as an investment; but the tables that I have given above, I think, make any such comparison superfluous; for they prove not only that mines are a very much more secure investment than railways, but that they are more *often* successful, and more *highly* successful, than almost any other description of investment that can be named.

OFFICIAL RETURNS OF COALS.—The separate bill of entry for coals exported in foreign ships, forwarded to the examiner of accounts from the outports, having become unnecessary in consequence of the repeal of the export duty on coals, by the Act of the 13th and 14th Vict., c. 95, the authorities have directed that the return alluded to be discontinued. This is of importance to the coal proprietors in the north and Wales.

FRENCH POST-OFFICE CONTRACT FOR COALS.—The contract for 6300 tons of coal, equal to Cardiff or Newcastle, was adjudicated on Wednesday, generally in favour of English coals. The quantities to the different stations are as follow:—Marseilles, 1500 tons; Malta, 2500 tons; Constantinople, 1100 tons; and Alexandria, 1200 tons.

ARGENTIFEROUS LEAD MINES OF SPAIN.—An extensive mining firm in London has received a large quantity of argentiferous galena from the mines of Roma and Dolores, in the vicinity of Carthagena, to be officially tested, and give an average produce of 27½ ozs. of silver to the ton of ore. These mines are now being worked on a large scale by Cornish miners and British machinery.

SUBMARINE TELEGRAPH ACROSS THE IRISH CHANNEL.—It is stated that negociations are now on foot with Government for the establishment of a submarine telegraph over the 60 miles of sea from Holyhead to Kingstown, and on to either Cork or Galway, to be thence connected by steam-ship with the nearest telegraph station on the other side of the Atlantic.

LIVERPOOL AND THE COAL TRADE.—A deputation, consisting of Messrs. R. A. Thicknesse, M.P., William Peace, R. Neilson, James Brancker, J. Jerdein, W. H. Brancker, and W. Laird, had an interview yesterday, with the dock committee, on the subject of providing proper accommodation for the coal trade of this port. We are gratified to find that the dock committee are satisfied that it will be for their interest to afford facilities for the coal trade, and that the subject will receive their favourable consideration. After a brief conversation, it was resolved—"That the committee, feeling the importance of the coal trade, and of providing suitable accommodation for the same, refer the question to the sub-committee of works for mature consideration of the details of such plans as may be offered for effecting the object in view. We have now a very sanguine hope of seeing the forgetfulness of the past promptly remedied by attention to the future. The very magnitude of the trade which we have lost through negligence will form one of the most powerful incentives to exertion for its recovery.—*Liverpool Mercury.*

NEW COLLIERY.—On the 18th inst., Thomas Prothero, Esq., of Malpas Court, cut the first sod, the commencement of opening a very extensive steam-coal colliery, on Dyffrin Amon Estate, Aberdare, for the Dyffrin celebrated steam-coal.—*Monmouthshire Merlin.*

TOWN HILL COLLIERY—We are glad to hear that the enterprising proprietors of this Swansea colliery have, after nearly two years' patient toil and considerable outlay, reached a fine vein of coal. The vein is a 5—6 one, and is supposed to be capable of producing about 880 statute acres. The coal is purely bituminous, and in point of quality, has been pronounced excellent.—*Cambrian.*

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Eleven o'clock.

Bank Stock, 8 per Cent., —	Belgian, 4½ per Cent., 91½
3 per Cent. Reduced Ann., 96⅞	Dutch, 2½ per Cent., 57⅝
3 per Cent. Consols Ann., 96⅞ ⅜	Brazilian, 5 per Cent., 92
3½ per Cent. Ann., 97⅛	Chilian, 6 per Cent., 104
Long Annuities, —	Mexican 5 per Cent., ex Coup., 30⅝ ⅜
India Stock, 10½ per Cent., 265½	Russian, 5 per Cent., 110⅜
3 per Cent. Con. for Acct. 15th Oct. 96⅛ ⅜ ⅝	Spanish, 5 per Cent, 19⅛ ⅜
Exchcq. Bills, 1000*l.*, 1½d. 67s pm.	Ditto 3 per Cent., 37⅛ ⅜

MINES.—There has been a very general demand for shares during the week. Holders of most of the leading mines appear to reserve them for higher prices; but there has been considerable transactions done in many of the secondary adventures, which have generally maintained former quotations, whilst in some an advance has taken place. On the whole, rather more than an average amount of business has been done.

The copper market has continued extremely active; and, from the large number of orders on hand, makers refuse to take more. Spelter also continues very firm.

East Wheal Rose has been sought for, in consequence, as we learn, of the general splendid prospects in the Charity ground. In the 50 fm. level the lode is 6 ft. wide, with a good leader of lead on the east and west walls.

South Tolgus, Devon Great Consols, Trelawny, Mary Ann, Treviskey and Barrier, South Basset, and South Frances, are among the dividend-paying mines inquired for.

In Alfred Consols a considerable business has been done, and shares are much sought after, at advanced prices.

Forty-nine tons of silver-lead ore, sold from Wheal Golden, realised 12*l.* 15s. per ton.—The lead ore sold from Wheal Trelawny produced—100 tons, 19*l.* 16s. per ton; and 48 tons, 2*l.* 2s. 6d. per ton.

At Wheal Crebor, the end of the 40, going towards Beauford's land, continues improving as they advance; and in the bottom of the level the leader is 1½ ft. wide—the quality, from an assay taken, makes it worth 22*l.* per fm. Other points of the mine are looking very well, as also the tribute department.

At Llwynmaloes the 8 fm. level has much improved, yielding now 3 tons of lead ore per fm., and is likely to produce more very soon.

The periodical report from Trehane represents the mine in a very satisfactory position.—The West Wheal Jewel report is of the same favourable character, with some slight improvements.

At Wheal Russell, the 37 end east has improved greatly, where there is a good bunch of fine ore. Under the 37 the lode in the shaft is about 11 ft. wide, and they are not yet through it, and probably have not the richest part of the lode. It was calculated that 25 tons of copper would be sold in about a fortnight, but it is now estimated at upwards of 40 tons.

The directors of the Devon Great Consols, at their weekly board meeting, held yesterday, declared a dividend of 6144*l.*, or 6*l.* per share, out of profits arising from sales of copper ores, sampled in May and June. After payment of the dividend, there will remain in hand a balance of 20,066*l.* 12s. 5d., consisting of cash, ore bills not at maturity, and Exchequer bills, applicable to the general purposes of the company. We have seen a private report from some agents (who recently visited the mine) to a large shareholder, and was much pleased to find the mine generally in so highly productive a position, returning upwards of 1500 tons per month, and making reserves as they progress. The lode in Anna Maria especially is said to be extraordinarily rich. Wheal Josiah is also looking remarkably well; whilst Wheal Maria and Fanny are not without their fair contributions to the immense monthly pile. At Wheal Emma the prospects are considerably improved, and there is little doubt of their having a new mine here. At Wheal Thomas (another valuable adjunct to this important and extensive property) the prospects are of the most promising character.

At a meeting of the directors of Tincroft, held on Thursday, a dividend of 10s. 6d. per share was declared, being 7½ per cent. upon the paid-up capital of the company.

At a meeting of Wheal Margaret adventurers, held at Halsetown, on the 13th inst., the accounts to the end of June were submitted, showing—By tin sold, 3422*l.* 12s. 2d.; sundries, 122*l.* 18s. 2d. = 3545*l.* 10s. 4d.—Labour cost and carriage, 1814*l.* 2s. 4d.; coals, 152*l.* 13s. 10d.; merchants bills, lord's dues, &c., 579*l.* 13s. 7d. = 2546*l.* 9s. 9d.: leaving balance in favour of company, 999*l.* 0s. 7d.; add balance at last account, 131*l.* 18s. 1d. = 1130*l.* 18s. 8d.—By dividend of 9*l.* per share, 1008*l.*: leaving balance now in hand, 122*l.* 18s. 8d. The mine, we learn, is looking very well.

At the Wheal Buller meeting, held on Tuesday, the accounts for July and August were presented, showing—Balance from the last account, 489*l.* 4s. 9d.; ores sold (less dues), 3853*l.* 9s. 4d. = 4351*l.* 14s. 1d.—Costs and merchants' bills, 1213*l.* 7s. 3d.—By dividend of 20*l.* per share, 2560*l.*: leaves balance in favour of adventurers, 578*l.* 6s. 10d.

At the Botallack meeting, held on Tuesday, the accounts for April, May, and June were passed, showing—Balance from last account, 303*l.* 10s. 6d.; ores sold, 2668*l.* 7s. 4d. = 2971*l.* 17s. 10d.—Costs and merchants' bills, 2428*l.* 2s.—By dividend of 5*l.* per share, 500*l.*: leaving balance in favour of adventurers, 43*l.* 15s. 10d.

At the Treviskey and Barrier meeting, the accounts of Treviskey for June and July showed a profit of 1801*l.* 18s. 5d. for the two months: a dividend of 15*l.* per share was declared, carrying to credit of next account 3*l.* 18s. 10d., with ore bills not yet at maturity. At Barrier there is but little doing. The mine is looking remarkably well, especially in the 236 and 248 fm. levels: 505 tons of ore were sampled on the 10th inst., and about 500 tons may be calculated on for September and October.

At Alfred Consols meeting, a dividend of 1*l.* per share was declared, as advised in our last. Since, we have received the statement of accounts, by which we find a balance of 1301*l.* 19s. 6d. in favour of the company, after deducting the dividend of 1024*l.*, a balance of 277*l.* 19s. 6d. is carried to credit of next account. The agent's report is of the most gratifying character. The lode in the 70 end east is worth 80*l.* per fm.; the winze under this level is worth 70*l.* per fm. The 60 end east is much improved, and now worth 20*l.* per fm., whilst other points are very encouraging.—Since the meeting, we are informed that the 60 east is considerably improved, worth 40*l.* per fm. The lode in the 70 is also improved, worth 100*l.* per fm.

At the Wellington Mines meeting, the profits on the months of May and June are shown at 194*l.* 13s. 11d., which, added to the balance from last account, allowed a dividend of 1*l.* per share, carrying to credit of next account, 27*l.* 6s. 5d. The prospects of the mine are greatly improved, and 200 tons of copper ore will, it is expected, be sampled in a fortnight from the day of meeting. The mine is now divided into 1024 shares, instead of 256, as formerly.

At George and Charlotte account meeting, the statement showed a balance of 24*l.* 10s. 10d. in favour of the company. Very little has been done since 1847. About four months since operations were resumed, and, from the discoveries recently made, it has been determined to carry on the works with more vigour; and to enable them to do so, a call of 1*l.* per share was deemed necessary. At the next meeting it is intended to increase the shares to 1024.

At the Bryn-Arian meeting, it appeared that the requisite machinery had been erected, and a profitable mine was anticipated. Rules were adopted for the future management of the mine; Mr. Hacket was elected on the committee, and a call of 5s. per share was made.

At South Plain Wood meeting, the accounts showed a balance in favour of the mine of 404*l.* 18s. 11d.; but as it was liable for August and September cost, a call of 10s. per share was made.

At the Wheal May meeting it appeared the balance remaining in hand was 21*l.*; while the amount remaining unpaid for labour and merchants' bills was 172*l.* Some dissatisfaction was expressed at the unfavourable nature of a report from Mr. Hopkins, as being totally at variance with the practical testimony of the captain and other disinterested persons. The meeting adjourned to Friday next to open a new cost-book; the mine to consist of 2500 shares, instead of 5000, as originally intended.

At the Lamherooe meeting, the accounts presented, showed—Liabilities, 576*l.* 4s. 5d.; assets, 473*l.* 10s. 10d.—leaving balance against the mine of 192*l.* 13s. 7d. It was resolved to forfeit 122 shares in arrear, if not paid by 26th inst. The meeting adjourned for a fortnight.

At the Exmoor Wheal Eliza meeting, Captain Moore, after detailing the workings already carried out, recommended, from the nature of the indications, that operations be continued, for which purpose the unappropriated shares are to be issued.

Shares in the following mines have changed hands during the week:—Devon Great Consols, East Wheal Rose, Condurrow, South Tolgus, Tremayne, Alfred Consols, South Basset, Trelawny, Mary Ann, West Tolgus, West Wheal Jewel, West Treasury, West Providence, Tincroft, Tamar Consols, Holmbush, Drake Walls, North Pool, Wheal Russell, Crebor, Hamlyn, Daren, Heigneton Down, Butterdon, Langmaid, Trehane, Wheal Trescoll, Cwm Erfin, West Towan, East Tolgus, Bedford United, Warleggan, South Carn Brea, Fortescue, Treviskey, Kirkcudbrightshire, West Caradon, Hawkmoor, Wellington, Black Craig, and Mill Pool.

In Foreign Mines there have been transactions in St. John del Rey, Copiapo, United Mexican, Cobre, Imperial Brazilian, Linares, and North British Australasian.

The United Mexican Mining Company's accounts are brought down to the 9th August. A most extraordinary improvement had taken place in the Mine of Rayas. One particular branch of ore had been cut, and was being followed without any depreciation in its value. Four cargas of this ore was sold for $3600; and, by assay, gave 1000 marcs of silver per monton, of 32 quintals, with 240 grains of gold to the marc, and thus doubling its value. By the report, inserted in another column, it will be seen that the new mines of Aldana and Promontorio are also giving very favourable indications of coming productiveness; and the sinking of the shaft in Jesus Maria y José was advancing to completion, when the grand problem would be solved respecting the famous La Luz vein continuing its course in this direction. After paying for the Bill of Exchange of 10,000*l.*, the available asset was $43,000.

Despatches have been received by the Brazilian Mining Company, per her Majesty's packet *Petrel*.

The Imperial Brazilian letters are to the 12th July, simply advising the gold returns from the 13th June to the 12th July, from Gongo Soco, amounting to 20 lbs. 0 ozs. 6 dwts., and from Bananal, 6 lbs. 5 ozs. 5 dwts.—making a total of 26 lbs. 5 ozs. 11 dwts. A remittance of about 6400*l.* of gold dust has been received. A petition to the Imperial Government, for reducing the duty to 5 per cent., has passed the Chamber of Deputies.

The National Brazilian advices are to the 13th July, furnishing the produce—from Cocaes, from 15th June to 13th July, mks. 5 1 5 50; from Cuiaba, from 18th June to 6th July, mks. 4 7 0 6: total, mks. 10 0 5 56. The stopes at Cuiaba are represented as looking very promising, with little doubt of having a productive mine.

The St. John del Rey despatches are to the 8th July. The produce for May is given at 22,484 oits., leaving a profit of 3417*l.* 14s. 7d., whilst that of the following month (June) appears to be 20,750 oits., with a profit of 2231*l.* 0s. 3d. only. The falling off of the returns is explained by the manager to be in consequence of a variety of untoward accidents during the month of June, and further adds that, "It is nearly two years since I had to report so low a rate of profit. It is now occasioned partly by the falling off in the produce, partly by the high amount of costs, which affects us every second month in the charges from Rio for export duty, commissions, &c., on shipments of gold, and partly by advanced rate of exchange."

From Linares the monthly report of Capt. Curry has been received to the 7th inst. In Wilson's shaft the discovery referred to last week is yielding from 3 to 4 tons per fathom. The lode in the 31 fathom level, Shaw's shaft, has improved, as well as in the 45 east. The tribute department is looking exceedingly well. The monthly returns were estimated at 90 tons, and is now found to produce on an average about 100 tons per month. The old workings east and west of San Antonio winze has been discovered productive, where the lode is estimated to yield from 3 to 4 tons per fathom. The engine works well, and other operations are progressing very satisfactorily. The quantity of lead weighed in stock during the week was 31 tons 14 cwts., whilst the total amount in store at the mines, Seville, and Malaga, is about 273 tons.

Advices have been received by the directors of the Barossa Range Mining Company, dated March 12. The report states that Lyndoch Valley Mine had been worked by three pares of men, some of whom made good wages: 52 tons of ore had been shipped, per *John Bartlett*, some days previous to date. It is stated that, if they had money to open 30 fms. of the lode in the 12 and 22 fm. levels, they should have a first-rate mine. The necessary funds were sent out by the directors some months since.

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state that, among mines, Wellingtons, Alfreds, and West Tolgus are inquired for. Bedford United, buyers 4½, sellers 4¾. Trehane and Heredsfoot offered. Railways continue good, and there is a much better class of buyers for these securities.

LATEST CURRENT PRICES OF METALS.

LONDON, SEPTEMBER 20, 1850.

ENGLISH IRON. *a*	*per ton.*	Tile	£78 10 0
Bar, bolt, & square, London	£5 2 6–5 5	Old copper *e*	*per lb.* 8¼d
Nail rods	6 2 6	Yellow Metal Sheathing	7¾d
Hoops	7 2 6	**FOREIGN COPPER.** *f*	
Sheets (singles)	8 0 0	Chili	—
Bars, at Cardiff & Newport	4 10–4 12 6	**ENGLISH LEAD.** *g*	
Refined metal, Wales*	3 5–3 12 6	Pig	*per ton* 17 0–17 10
Do. anthracite*	3 10 0	Sheet	18 0–18 10
Pigs in Wales	3 0 0–3 10	Pipe	19 0 0
Do. do. forge	2 5 0–2 10	Red lead	19 0 0
Do., No. 1, Clyde *net cash*	2 0–2 2 6	White ditto	25 0 0
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0	Patent shot	20 10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0	**FOREIGN LEAD.** *h*	
Stirling's Patent Pig in Glasgow	2 15 0	Spanish, in bond	16 0 0
Toughened Pigs in Wales	3 10–3 15	**ENGLISH TIN.** *i*	
Staffordshire bars, at the works	5 10 0	Block	*per cwt.* 4 3 0
Rails	4 12 6–4 15	Bar	4 4 0
Chairs (Clyde)	4 0 0	Refined	4 9 0
FOREIGN IRON. *b*		**FOREIGN TIN** *k*	
Swedish	11 7 6–11 15	Banca, H. C.	4 0 0
CCND	18 0 0	Ditto, for Export only	—
PSI	15 0 0	Straits	3 18 0
Gourieff	14 10 0	**TIN-PLATES.** *l*	
Archangel	13 10 0	IC Coke	*per box* 1 7 6–1 8
FOREIGN STEEL. *c*		IC Charcoal	1 12 6
Swedish keg	14 0 0	IX ditto	1 18 6
Ditto faggot	15 0 0	**SPELTER.** *m*	
ENGLISH COPPER. *d*		Plates, warehoused	*per ton* 16 0–17 0
Sheets, sheathing, & bolts, *p. lb.*	0 0 9	Ditto, to arrive	—
Tough cake	*per ton* 79 10 0	**ZINC.** *n*	
		English sheet	*per ton* 21 0 0
		Quicksilver *o*	*per lb.* 3s. 9d.

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales.

REMARKS.—Welsh bars continue in the same inactive state they have been in for the last few weeks, and quotations remain unaltered. In Scotch pig-iron a large speculative demand has sprung up this week, and considerable business has been done. Prices have advanced 1s. per ton. The value of mixed Nos. is now 42s. 6d. cash, and 43s. three months, open, with 3s. per ton deposit.—Tin remains calm, and without alteration. Tin plates are still wanted, and prices are fully maintained.—Copper is much inquired for, and in some instances an advance has been paid, privately.—Lead is quiet.—Spelter has continued in good request, and higher rates have been paid: 16*l.* 10s. is now the price.

GLASGOW, SEPT. 19.—In pig-iron there has been a speculative demand for the past week. Yesterday, sales to some extent were made, at 42s. 6d. cash. To-day, however, the market is depressed and closed—sellers at 42s., cash.

SCOTCH IRON.

While the position of the miners on strike, and the restricted output of pig-iron, were steadily kept before the public, there was more disposition to speculate in this article, and up to about the middle of June this influence increased the price from 42s. to 46s., cash, free on board. About that date, the men returned to duty on masters' terms; and although the limitation of make was agreed to be continued till the beginning of Sept., the price of pig-iron began to decline, and, by a kind of infinitesimal process, kept doing so till the 16th inst., at which date the active furnaces of Scotland had increased from 45—the lowest point during the strike—to 75; and the price stood 41s. to 41s. 6d. The beginning of the present week witnessed the struggling revival—throes of the spirit of speculation; and notwithstanding the bad principle and repute of iron scrip, business has been done on the old footing, at a trifling advance, and the price is now stated 42s. 6d. No. 1 and Mixed Nos., cash, free on board.

The shipments for the corresponding periods of this and last year are somewhat, though not materially, in favour of 1849; but the local foundry consumption is in favour of 1850. The present stock of pigs in yards and makers' hands may be represented about 180,000 tons, which will, probably, be increased by 30,000 tons at 31st December next. Taking these figures as approximately, and not absolutely, correct, it will not escape notice, that the make has been much less in 1850 than 1849, and should many additional furnaces be put in operation subsequent to this date, the stock at the end of the year will be affected in proportion. It is quite possible that, with the present cheapness of money, the value of pig-iron may have reached its lowest point; yet many parties, who have had extensive experience in the trade, consider it as only as the prospects of business for next spring, and a clearer political horizon begin to be indicated, that a correct idea of this can be formed, while others are already acting on a contrary opinion. In bar-iron there has not been much activity.—*Glasgow, Sept.* 19.

ROYAL PANOPTICON OF SCIENCE AND ART.—A vestry meeting of the inhabitants of St. Paul, Covent-garden, was held last evening in the vestry-room, to consider the propriety of promoting the erection of this institution.—Mr. George Wilkinson (one of the churchwardens) presided, and expressed his belief that the institution would be of great benefit.—Mr. E. M. Clarke (the resident director and curator) said upwards of 4,000,000*l.* were spent in London for sight-seeing; and at the Colosseum, Polytechnic, &c., more than double was paid for conveyance than was taken at the doors. They were most centrically situated, and he had no doubt the undertaking would pay 10 per cent.—Mr. Walker and Mr. Verity opposed the motion for supporting the establishment, but, on a division, it was carried by 12 to 9.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company	Paid.	Price.
1000	Abergwesin (silver-lead), South Wales	9	—
1024	Alfred Consols (copper), Hayle, Cornwall	8¾	45 50
1248	Allt-y-Crib (silver-lead), Talybont, Cardiganshire	5	5 5½
1624	Balleswidden (tin), St. Just, Cornwall	9	14
128	Balnoon Consols (tin), Uny Lelant, Cornwall	42½	20
905	Barristown (lead), Carrick, Ireland	5½	—
3650	Bawden (silver-lead), Cornwall	½	½ ⅝
4000	Bedford United (copper), Tavistock, Devon	2½	4½ 4¾
1280	Birch Tor and Vitifer (tin), Dartmoor, Devon	10½	7½ ¾
1500	Bishopstone (silver-lead), South Wales	1⅛	10
5000	Black Craig (lead), Kirkcudbrightshire	5	5
8000	Blaenavon (iron), South Wales	50	12½
1024	Bodmin Consols (lead), Wadebridge, Cornwall	3	3
5000	Bodmin Moor Consols (tin and copper), Bodmin, Cornwall	1	3
60	Bosorn (tin), St. Just, Cornwall	4½	10 12½
100	Botallack (tin and copper), St. Just, Cornwall	182	150
2000	Bottle Hill (tin and copper), Plympton, Devon	2	2
1500	Bridford Wheal Augusta (lead), Bridford, Devon	¼	—
10000	British Iron, New, regis. (iron), South Wales	12	8
—	Ditto ditto, scrip	10	10
2400	Bryn-Arian (lead), Cardiganshire	2	2½
107	Budnick Consols (tin), Perranzabuloe, Cornwall	52½	10 11½
406	Butterdon (lead), Menheniott, Cornwall	1½	4¾ 5½
2000	Bwlch Consols (silver-lead), Cardiganshire	—	4½
1000	Callington (lead and copper), Callington, Cornwall	26	6½ 7½
1000	Camborne Consols (copper), Camborne, Cornwall	7	7 8
20000	Cameron's Steam Coal (coal), Swansea, Wales	7	—
1168	Caradon Great Cons. Mines (copper), Linkinhorne, Corn.	22½	10
256	Caradon United (tin and copper), St. Cleer, Cornwall	24	5 8
1536	Caradon Vale (copper and lead), St. Ive, Cornwall	¾	1½ 1½
1000	Carbona (tin and copper), Crowan, near Camborne	5	10
1000	Carn Brea (copper and tin), Illogan, Cornwall	15	117½ 125
3000	Carthew Consols (cop. & lead), near Wadebridge, Cornwall	3½	7
132	Carvannall (copper), Gwennap, Cornwall	21½	60 80
200	Cefn Bruno (lead), Cardiganshire	4	9
113	Charlestown (tin and copper), St. Austle, Cornwall	220	—
500	Comblawn (lead), Callington, Cornwall	5¾	4½
128	Comfort (copper), Gwennap, Cornwall	45	110
256	Condurrow (copper and tin), Camborne, Cornwall	20	115 120
2560	Cook's Kitchen (copper and tin), Illogan, Cornwall	14	7 7½
1000	Coombe Valley Quarry (slate), St. Ginnis, Cornwall	5	2
1000	Copper Bottom (copper), Crowan, Cornwall	5	7
900	Court Grange (silver-lead), Cardiganshire	9	10
211	Craddock Moor (copper), St. Cleer, Cornwall	27	8
256	Crane and Bejawsa, Camborne	2	10
1000	Cwm Erfin (lead), Cardiganshire	4	3½ 3½
128	Cwmystwith (lead), Cardiganshire	60	70
1000	Daren (silver-lead), Cardiganshire	2	8 8½
7100	Derwent (silver-lead), Durham	10	3
1040	Devon and Courtenay Consols (copper), near Tavistock	11½	3
1024	Devon Great Consols (copper), near Tavistock	1	222½ 225
1000	Dhurode (copper), Ireland	2	5
182	Dolcoath (copper and tin), Camborne	30	20
2560	Drake Walls (tin and copper), Calstock, Cornwall	6½	2½ 3
10000	Durham County Coal (coal), Durham	45	9
3000	Dyfngwm (lead), North Wales	10	2½
1024	East Balleswidden (tin), Sancreed, Cornwall	¼	¼
2500	East Birch Tor (tin), North Bovey, near Ashburton	3	3
1024	East Buller (copper), near Redruth, Cornwall	2	5½
128	East Carn Brea (copper), Redruth, Cornwall	1	2½
2048	East Crowndale (tin), Tavistock	7½	½ ¾
150	East Daren (lead), Cardiganshire	11	21
256	East Godolphin (copper), Crowan, Cornwall	13½	13
4000	East Gunnis Lake Junction (copper), Gunnis Lake	½	⅝ ¾
128	East Pool (tin and copper), Pool, Illogan, Cornwall	15	60 62½
256	East Seton and Wheal Maude, near Redruth, Cornwall	—	4½
9000	East Tamar Consols (silver-lead), Beer Ferris, Devon	1½	1¾ 1½
256	East Tolgus (copper), Redruth, Cornwall	1½	8
1000	East Trescoll (tin), Lanivet, near Bodmin, Cornwall	1	1½
128	East Tywarnhayle (copper), St. Agnes, Cornwall	1	9½
128	East Wheal Ager (copper), St. Cleer, Cornwall	—	—
94	East Wheal Crofty (copper), Illogan, Cornwall	125	110 120
128	East Wheal Rose (silver-lead), Newlyn, Cornwall	50	480 525
1280	Esgair Llee (lead), Llanfihangel-y-Croythin, Cardigan	2	3 3½
248	Exmoor Wheal Eliza (copper), South Molton, Devon	11	12 13
494	Fowey Consols (copper), Tywardreath, Cornwall	40	30
1024	Freidd Llwydd Mines (lead), Wales	1½	3½
256	Garras (lead), near Truro	41	23
4000	General Mining Company for Ireland (copper), Ireland	1½	4
100	Goginan (lead), Cardiganshire	5	200
256	Gonamena (copper), St. Cleer, Cornwall	44½	16
2500	Georgia Consols (tin), St. Ive's, Cornwall	2	3
256	Grambler and St. Aubyn (copper), Redruth, Cornwall	80	17½
96	Great Consols (copper), Gwennap, Cornwall	1000	250
512	Great Wheal Baddern (tin and silver-lead), Kea, Cornwall	20	85 90
512	Gt. Wh. Rough Tor Consols (copper), near Camelford	24½	20
6000	Growa Slate Company, Camelford, Cornwall	5	5
1026	Gustavus Mines (copper), Camborne	3	2¾ 3
512	Hawke's Point (copper), Uny Lelant, Cornwall	5	—
1024	Hawkmoor (copper), Calstock, Gunnis Lake	5	17
6000	Heignston Down Consols (copper), Calstock, Cornwall	2½	3
1500	Hennock (silver-lead), Hennock, near Exeter, Devon	26s	2½ 3
512	Herodsfoot (lead), near Liskeard	16	14
10000	Hibernian (copper), Ireland	12½	1⅞
1000	Holmbush (lead and copper), Callington	23	20
1900	Keswick (lead), Portinscale, near Keswick	10	2 3
1024	Kingsett & Bedford (lead & copper), St. Mary Tavy, Devon	3⅝	3
787	Kirkcudbrightshire (lead), Kirkcudbrightshire, Scotland	8½	5½ 6
2048	Lamherooe Wheal Maria (copper and tin), Lamerton	10	4
252	Lanarth Consols (copper), Gwennap, Cornwall	—	10
256	Lelant Consols (tin), Uny Lelant, Cornwall	53	25
160	Levant (copper and tin), St. Just, Cornwall	—	175
1000	Lewis (tin and copper), St. Erth, Cornwall	17	15
100	Lisburne (lead), Cardiganshire	75	600
1000	Llwynmalees (lead), Cardiganshire	9½	9 10
3600	Llynvi Iron (iron), North Wales	50	50
6000	Marke Valley (copper), Caradon, Cornwall	10	⅝ 1
5000	Mendip Hills (lead), near Bristol	3⅞	2 2½
128	Metha (lead) Newlyn, Cornwall	34	—
256	Mill Pool (tin and copper), St. Hilary and Germoe, Corn.	1½	8½
256	Mineral Court (tin), St. Stephens, near St. Austle	13½	30 35
20000	Mining Co. of Ireland (copper, &c.), Waterford, Ireland	7	5
1024	Moditonham & Marrabro' (copper & lead), Botus-fleming	1½	2½ 3
1024	Montgomery (lead and copper), Montgomeryshire	6	11½ 12
200	Nanteos (lead), Cardiganshire	34	—
3000	Nant-y-Car (copper), near Rhayader, Breconshire	—	1 1½
1024	New East Crowndale (copper and tin), Tavistock	2	2
6000	North Wheal Basset (copper and tin), Illogan, Cornwall	—	15 20
1024	North Buller (copper), Redruth, Cornwall	2	5
256	North Tolgus (copper), Redruth, Cornwall	2½	2½
100	North Pool (copper and tin), Pool, Cornwall	45	390 400 410
140	North Roskear (copper), Camborne, Cornwall	5½	160
262	North Wheal Leisure, Perranzabuloe, Cornwall	1½	1¼
512	North Wheal Vor (tin), Breage, near Helston, Cornwall	—	5
128	Par Consols (copper), St. Blazey, Cornwall	55⅝	650
1026	Pendarves Consols (copper), Camborne, Cornwall	2	6½
1000	Pendarves and St. Aubyn (copper), Camborne, Cornwall	4	5½ 6
4934	Pennant and Craigwen (lead), Wales	3	5 5½
2048	Pentire Glaze, United (silver-lead), St. Mervin, Cornwall	3	5
1000	Penybank and Ercloyd (lead), Cardiganshire	4	6
1024	Penzance Consols (tin), Sancreed, Cornwall	22s 3d	2¾
1000	Peter Tavy and Mary Tavy (copper), Tavistock, Devon	2½	5 5½
512	Plymouth Wheal Yeoland (tin), Plymouth, Devonshire	6½	6
1000	Polberron (tin), St. Agnes, Cornwall	¼	—
1000	Ditto Preferential	15	—
112	Providence Mines (tin), Uny Lelant, Cornwall	—	150
2500	Rhoswydol and Bacheiddon (lead), North Wales	10	10
10000	Rhymney Iron (iron), Rhymney, South Wales	50	12
10000	Ditto New	7	3
5000	Roche Rock (tin), Roche, near St. Austle	1	1
5000	Rocks Mine (tin), Roche, near St. Austle	5	6 7
2048	Runnaford Coombe (tin), Devon	2½	5 5½
2048	Snowdon (copper), Carnarvonshire, Wales	3	5
1024	South Balleswidden (tin), St. Just, Cornwall	½	½
9000	South Tamar (silver-lead), Beer Ferris, Devon	1	2½
128	South Caradon (copper), St. Cleer, Cornwall	5	260
2000	South Carn Brea (copper), Illogan, Cornwall	10	10
1100	South Dolcoath (copper), Illogan, Cornwall	6	3 4
256	South Friendship Wheal Ann (copper & tin), Devonshire	30	28 30
256	South Molton (lead), Devonshire	12½	5 6
1024	South Plain Wood (copper), Ashburton, Devon	2	6 7
300	South Speed (copper and tin), Uny Lelant, Cornwall	15	30
256	South Tolgus (copper), Redruth Cornwall	16	150 160
256	South Trelawny (lead), near Liskeard, Cornwall	28½	5 8
2000	South Wales Mining Company (lead), South Wales	1	1
256	South Wheal Basset (copper), Illogan, Cornwall	10½	330 335
124	South Wheal Frances (copper), Illogan, Cornwall	160	542½
256	South Wheal Josiah (copper), Calstock, Cornwall	2	3½ 4
10000	Southern and Western, Irish (copper), Cork, Ireland	2½	4
280	Spearne Moor (copper), St. Just, Cornwall	30	40
128	Spearne Consols (tin), St. Just, Cornwall	10	100
256	St. Aubyn and Grylls (copper and tin), Brease, Corn.	2½	8½ 9
94	St. Ives Consols (tin), St. Ive's, Cornwall	—	80
128	St. Michael Penkivel (cop. & tin), Chacewater, Cornwall	5	10½
999	St. Minver Consols (silver-lead), Cornwall	1	6
1000	Stray Park (copper), Camborne, Cornwall	10½	20 21
9600	Tamar Consols (silver-lead), near Tavistock, Devon	3	2½ 3
687	Tavy Consols (copper), near Tavistock	8	3½ 3¾
6000	Tincroft (copper and tin), near Pool, Cornwall	7	12¾ 13¼
128	Tokenbury (copper), St. Ive, near Liskeard	7½	8
240	Tolcarne (tin and copper), Camborne, Cornwall	8	12½
1024	Trannack United Mines (tin and copper), Helston, Corn.	½	6½ 7½
2048	Trebell Consols	1½	1½
5000	Tregear Consols (antimony and silver-lead), St. Kew	1	2 2½
256	Tregorden (silver-lead) near Bodmin, Cornwall	10	7 10
256	Trehane (silver-lead), Menheniot	1	20
5000	Treleigh Consols (copper), Redruth	6	2½ 3
1024	Trelusback, Stithians, Cornwall	—	5

BRITISH MINES—*Continued.*

Shares.	Company.	Paid.	Price.
150	Trelyon Consols (tin), St. Ive's, Cornwall	7½	20
2000	Trenance (copper), Helston, Cornwall	6	7 8½
1500	Treasnit (lime quarries)	2½	3½ 4
96	Tresavean (copper), Gwennap	10	130
120	Trethellan (copper), Gwennap	5	30
120	Treviskey and Barrier (copper), Gwennap, near Redruth	130	275 280
512	Trethevy (copper), St. Cleer, Cornwall	4½	5½
512	Treville (lead), Lewanick	⅛	6 7
1000	Tyllwyd (lead), Cardiganshire	2	2½
500	Tywarnhayle (copper), Illogan and St. Agnes	50	50
200	United Mines (copper), Gwennap	50	160
5000	Warleggan Consols (copper), Cornwall	¼	2
1024	Wellington Mines (copper and tin), Perranuthnoe, Corn.	6½	8¾ 9½
128	West Buller (copper), Redruth, Cornwall	10	687½
256	West Caradon (copper), Liskeard	20	92½
512	West Fowey Consols (tin and copper), St. Blazey	40	60
2048	West Goginan (silver-lead), Cardiganshire	1½	1½
1024	West Par Consols (copper), St. Blazey, Cornwall	5	—
2500	West Polgooth (tin), St. Ewe and St. Mewan, Cornwall	5	7
512	West Providence (tin), St. Erth, Cornwall	10	10 20
200	West Seton (copper), Camborne, Cornwall	45	110 115
120	West Trethellan (copper), Gwennap, Cornwall	5	20
512	West Wheal Frances (copper), Illogan, Cornwall	1½	14½ 15½
1024	West Wheal Friendship (copper), Devon	3	3 4
3845	West Wheal Jewel (tin and copper), St. Day, Cornwall	12	3 3½
940	West Tolgus and Treloweth (copper), Illogan, Cornwall	12½	5½
500	West Wheal Towan (copper), Illogan, Cornwall	5	11 12
1024	West Wheal Treasury (copper), Gwinear, Cornwall	11½	9
5200	Wicklow (copper), Wicklow, Ireland	5	18
5000	Wicklow (copper and sulphur), Wicklow, Ireland	3	3½ 3½
107	Wheal Adams (lead), Christow, Exeter	130	150
1000	Wheal Agar (copper), Illogan, Cornwall	—	5 6
256	Wheal Albert (copper), Cornwall	10	28 29
128	Wheal Ann (tin), near Helston, Cornwall	—	50½
2048	Wheal Arthur (lead), Calstock, Cornwall	2	2
256	Wheal Arthur (lead), near Truro, Cornwall	4	3½
120	Wheal Bal (tin), St. Just, Cornwall	10	22
256	Wheal Benny (copper), Calstock, Cornwall	19½	5
1024	Wheal Bray (copper), Alternum, Cornwall	11½	—
232½	Wheal Calstock (copper), Calstock, Cornwall	9	10
256	Wheal Carpenter (tin and copper), Gwinear, Cornwall	—	12
268	Wheal Courtenay (copper), Cornwall	20	23
1024	Wheal Crebor (copper), Tavistock, Devon	1½	3½ 3½
500	Wheal Daniell (copper), Chacewater	2½	—
182	Wheal Elizabeth (copper), Redruth, Cornwall	9	52½
1024	Wheal Emily (lead and antimony), near Plymouth	3	5½ 6
1024	Wheal Fortescue (copper), near Tavistock, Devon	4½	1 1½
764	Wheal Franco (copper), near Tavistock, Devon	27	6 7
100	Wheal Friendly (tin), St. Agnes, Cornwall	70	65
128	Wheal Friendship (copper), Devon	—	120
4000	Wheal Golden (lead), Peranzabuloe, Cornwall	2	5 6
1000	Wheal-an-Grose (tin), St. Columb Major, Cornwall	5	5 6
1000	Wheal Grose (silver-lead, copper, &c.), near Wadebridge	¼	—
2560	Wheal Harriet (copper), Camborne, Cornwall	—	3
1024	Wheal Hamlyn	½	1¼ 1½
2048	Wheal Harris (lead), near Tavistock	¾	¼
100	Wheal Henry (copper), Kea, near Truro, Cornwall	—	40
256	Wheal Kingston	½	1½
6000	Wheal Langford (copper and silver-lead), Callington	⅛	1
2000	Wheal Langmaid (lead), Devon	⅛	½ ¾
112	Wheal Margaret (tin), Uny Lelant, near Hayle	79	170 175
512	Wheal Mary Ann (lead), Menheniot	5	48 50
1024	Wheal Neptune (copper), Perranuthnoe, Cornwall	1	1½
360	Wheal Oak, near Helston, Cornwall	25½	5
3000	Wheal Penhale (lead and copper), Cornwall	2	6
128	Wheal Plenty (copper), Redruth, Cornwall	19	20
210	Wheal Prospect	4	7
120	Wheal Reeth (tin), St. Ive's, Cornwall	41	120
1024	Wheal Russell (copper), Tavistock	4	4 5
198	Wheal Seton (copper), Camborne, Cornwall	107	260 270
1056	Wheal Sarah (silver-lead), St. Kew, Cornwall	5	6
512	Wheal Sophia (silver-lead), Lezant, Cornwall	6¾	7
128	Wheal Squire (copper), St. Erth, Cornwall	—	5
1000	Wheal Susan, Breage and Crowan, Cornwall	½	2
512	Wheal Trefusis (copper), Gwennap, Cornwall	4½	5
1100	Wheal Trescoll (tin), Lanivet, near Bodmin, Cornwall	6¾	8
520	Wheal Trelawny (silver-lead), near Liskeard, Cornwall	3½	44 45
256	Wheal Tremaine, St. Ervan, Cornwall	9½	2½
1024	Wheal Tremayne (tin and copper), Gwinear, near Hayle	9½	14½
267	Wheal Tryphena (tin and copper), Camborne, Cornwall	40	62½
126	Wheal Union (copper), Redruth, Cornwall	—	38 40
512	Wheal Venton (lead), Cornwall	2½	4 4½
1000	Wheal Vincent (tin), Alternum, Cornwall	5½	7
128	Wheal Violet (tin and copper), St. Stephens, St. Austle	2	2
184	Wheal Vyvyan (copper and tin), Constantine, Cornwall	—	60
—	Wheal Zion (copper), Calstock	1	1

FOREIGN MINES.

Shares.	Company.	Paid.	Price.
5000	Alten Mining Company (copper), Norway	14½	1½ 2
12000	Annotto Bay Mining Association, Jamaica	1	1½
15000	Asturian Mining Company (coal, iron, &c.), Spain	15	1½ 2
20000	Australian (copper), South Australia	4	2 2½
6000	Barossa Range (copper), South Australia	1⅝	¾
10000	Brazilian Imperial (gold), Brazil	23	6 6½
12000	Cobre Copper Company (copper), Cuba	40	31½
10000	Copiapo Mining Company (copper), Chili	14	4¾ 5
20000	General Mining Association (iron & coal), Nova Scotia	20	12½ 13
5000	Kinzigthal Mining Association (silver), Germany	2	¾
5000	Linares (lead), Spain	3	2 2½
500	Ditto New	3	3
5051	Mexican Company (silver), Mexico	59½	—
20000	Mexican and South American (silver), Mexico	8	1 1½
5000	National Brazilian (gold), Brazil	30	3
104000	North British Australasian (copper), S. A. & New Zea.	1	½ ¾
7000	Royal Santiago (copper), Cuba	10	10
11000	St. John del Rey (gold), Brazil	15	10 14 15½
43174	United Mexican (silver), Mexico Av.	28¼	6 6½
10000	Worthing (copper), Adelaide, South Australia	2	2

JOINT-STOCK BANKS.

Shares.	*Companies.*	*Paid.*	*Div. p. cent.*	*Price.*
22,500	Australasia	£10	£1½	£29½ 30
20,000	British North American	50	6	42 ½
20,000	Colonial	25	5	7¾ 8 7¾
20,000	Commercial of London	20	6	23½
10,000	London and County	20	6	—
60,000	London Joint-Stock	10	6	18½
50,000	London and Westminster	20	6	27½ 7 ½
10,000	National Provincial of England	35	6	37½
10,000	ditto New	10	5	11
20,000	National of Ireland	22½	5	18½
20,000	Provincial of Ireland	25	8	42 1½
10,000	South Australia	22½	6	20
20,000	Union of Australia	25	6	32½ ¾
60,000	Union of London	10	6	12½

MEETINGS DURING THE ENSUING WEEK.

MONDAY ...... Kingsett and Bedford Mining Company—Half Moon Hotel, Twelve.
Hibernian Gas-light Company—offices, Two.

WEDNESDAY .. British Gas-light and Coke Company—offices, One.
General Screw-steam Shipping Company—offices, One.

FRIDAY ...... Wheal May Mining Company—Rose and Crown Inn, City, at Two.
Guardian Assurance Company—offices, Twelve.

QUICKSILVER.—One of the most important features as connected with the general mining operations in Mexico, is the statement just received, that Messrs. Barrow, Forbes, and Co.'s quicksilver mine in California is in very large produce, and that their furnaces, retorts, &c., were so far advanced in construction, that Mr. Barrow, who was recently in Mexico, said they would be able to supply consumers in the republic to a large extent, and that the price would be somewhere about $70 per quintal, delivered at Guanaxuato. This rate will be about 2s. 7d. per lb.; and when it is considered that the present price here is 3s. 9d. per lb. cash, the difference alone will be a large profit, besides bringing into reduction large quantities of ores hitherto considered too poor to bear the heavy cost of quicksilver.

CALIFORNIA.—Accounts have been received from San Francisco up to 1st o August. The city was fast recovering from the effects of the late fire. New and elegant buildings were springing up, and much activity prevailed in the markets. From some reports, it was stated that, from the frequency of assault and murder, numbers were leaving the diggings, many almost destitute: 100 Mexicans who had been obliged to leave, had landed at Acapulco. The *Alto California* states that the country is overrun with assassins, robbers, and outlaws—being the scum of every country; and that the diggers had ceased all operations, and banded together to drive out all these pests, and form something like a honest community, composed of those who really worked, and had an ostensible motive for remaining. As the waters receded, it is stated the find of gold was increasing; and there are accounts of lumps being found of 20 and 42 lbs.; and one fortunate fellow at Murphy's diggings picked up a piece weighing 93 lbs., one-half pure gold; and one at Mercedes took a lump weighing 83 lbs., nearly all pure. The inhabitants of Stockton had raised a band of volunteers for the protection of life and property. The amount of gold-dust arrived by the *Empire City* to New York was $1,000,000; and there was expected by the *Georgia* and *Panama* $3,800,000 more.

NEW LOCOMOTIVE.—It is stated that a new locomotive engine, on an improved principle, has lately been manufactured at the Great Northern Works, Boston, which the makers warrant will run the distance from Boston to London, 108 miles, with six carriages and two breaks, the usual express train, in one hour and thirty minutes. The principal improvement, we hear, is the safety-valve. The engine will in a short time be ready for trial.

SILVER-LEAD ORE.

Sold on the Mine on the 14th of September.

Mines.	*Tons.*	*Price per Ton.*	*Purchasers.*
Wheal Golden	49	£12 15 0	Sims, Willyams, and Co.

LEAD ORES.

Sold in London.

Mines.	*Tons.*	*Price.*	*Purchasers.*
Esgair Llee	25	£9 3 6	Newton, Keates, & Co.
Tamar	84	17 3 6	T. Somers.
Holmbush	35	15 13 6	Michell & Son.
Sold at Liskeard.			
Trelawny	100	£19 16 0	Locke, Blackett, and Co.
ditto	48	2 2 6	T. Somers.
Sold on the Mine.			
East Wheal Rose	60	£15 5 0	Penpoll Company.
ditto	45	13 18 0	Newton, Keates, & Co.
ditto	23	12 2 6	T. Somers.

BLACK TIN

Bought by the Union Tin Smelting Works, Sept. 17.

Mine.	*Cwts. qr. lbs.*	*Price per Ton.*	*Amount.*
Lamherooe Wheal Maria	4 3 3	£45 7 6	£10 16 9
ditto	1 1 0	17 0 0	1 13 9

Amount of money..........£12 10s. 6d.

Mine.	*Tons.*	*Price per Ton.*	*Purchasers.*
Plymouth Wheal Yeoland	2½	£48 0 0	Daubuz.
Drake Walls	5½	47 7 6	J. H. Enthoven & Co.
ditto	3½	42 2 6	Calenick Co. and Williams.
Tincroft	12	42 12 6	Daubuz and Williams.
ditto	2	25 0 0	Ditto and ditto.

COPPER ORES

Sampled August 28, and Sold at Swansea, Sept. 17, 1850.

Mines.	Tons.	Prod.	Price.	Mines.	Tons.	Prod.	Price.
Cobre	97	14	£10 7 6	Cuba	94	11½	£8 8 0
ditto	96	13¾	9 15 6	ditto	76	11½	8 2 6
ditto	94	13¾	9 19 6	ditto	62	21⅞	16 10 6
ditto	54	24½	18 3 6	ditto	57	11½	8 3 0
ditto	45	24½	18 0 6	Kaw-aw	50	20½	15 5 0
ditto	10	16½	11 16 6	ditto	43	20½	15 4 0
ditto	117	14¾	10 2 6	ditto	14	10⅜	7 1 0
ditto	106	15½	11 12 6	ditto	54	15½	11 15 6
ditto	69	25½	19 1 6	ditto	34	15	11 5 6
ditto	66	23½	17 11 0	Knockmahon	64	7	5 1 6
ditto	63	21	18 1 6	ditto	42	7⅞	5 8 6
ditto	83	15	11 2 6	Gurtnadyne	27	13½	10 8 0
ditto	74	15	11 10 0	Ballinoe	15	13½	10 3 6
ditto	72	15⅝	11 9 6	Kapunda	39	26⅞	26 6 6
ditto	44	25⅜	18 12 6	Vine Slag	11	4½	2 10 0
ditto	42	25	18 5 6	Burra Burra	2	16½	12 12 0
Cuba	100	11½	8 15 0				

TOTAL PRODUCE.

Cobre	1132	£15010 19 0	Ballinoe	15	£ 152 12 6
Cuba	389	3771 4 0	Kapunda	39	792 13 6
Kaw-aw	195	2534 0 0	Vine Slag	11	27 10 0
Knockmahon	106	552 13 0	Burra Burra	2	25 4 0
Gurtnadyne	27	280 16 0			

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	266	£3427 5 6
Freeman and Co.	116	1078 17 0
Grenfell and Sons	496	5890 6 6
Sims, Willyams, and Co.	194	2607 18 3
Vivian and Sons	208	1805 0 0
Williams, Foster, and Co.	472	5727 6 9
Mason and Elkinton	164	2610 18 0
Total	1916	£23,147 12 0

AVERAGES.

	Produce.	Price.	Standard.
British	8½	£6 7 6	£100 8 6
Foreign	17	12 12 0	87 8 6
Sale	16¼	£12 1 6	£87 19 6

Totals—British, 159; Foreign, 1757 = 1916 (21 cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	9½	£6 13 6	£93 3 0
Foreign	24¾	18 8 6	83 14 6
Sale	20⅝	£15 7 0	£84 18 0

Totals—British 624; Foreign, 1754 = 2378 (21 cwts.)

NO SALE on the 1st October next.

COPPER ORES

Sampled Sept. 4, and Sold at the Royal Hotel, Truro, Sept. 19.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Devon Gt. Cons. } Wh. Josiah }	97	£6 11 0	Wh. Anna Maria	49	£7 7 6
ditto	91	5 2 0	West Caradon	99	6 18 0
ditto	86	8 10 0	ditto	98	7 2 6
ditto	85	6 2 6	ditto	68	9 17 6
ditto	74	5 16 6	ditto	37	4 8 0
ditto	71	8 17 6	ditto	31	11 10 6
ditto	59	9 2 6	Fowey Consols	100	5 18 6
ditto	58	2 11 6	ditto	85	7 2 6
Wh. Fanny	108	5 0 0	ditto	68	4 14 0
ditto	89	6 6 0	Wh. Friendship	91	9 2 0
ditto	88	5 8 6	ditto	87	8 18 6
ditto	87	4 8 0	ditto	42	4 14 6
ditto	64	8 8 6	Poldice	73	5 15 0
ditto	36	3 4 6	ditto	57	5 7 0
Wh. Maria	104	3 12 6	ditto	32	4 6 6
ditto	72	8 3 6	Bedford United	120	6 6 0
ditto	62	8 5 0	Wheal Maiden	30	4 15 6
ditto	5	13 0 0	ditto	11	1 10 0
Wh. Anna Maria	80	5 2 0	Wh. Jewel	12	5 4 0
ditto	53	7 1 0	ditto	11	1 4 6

TOTAL PRODUCE.

Devon Gt. Cons., Wh. Josiah, Wh. Fanny, Wh. Maria, Wh. Anna Maria	1518	£9401 6 0	Fowey Consols	253	£1517 14 6
			Wh. Friendship	220	1803 0 6
			Poldice	162	863 2 0
			Bedford United	120	756 0 0
			Wh. Maiden	41	159 15 0
West Caradon	333	2572 18 6	Wh. Jewel	23	75 17 6

Average Standard ....£96 13 0 | Average Produce 9½
Average Price per ton £6 8 6
Quantity of Ore ....2670 tons | Quantity of Fine Copper, 253 tons 7 cwts.
Amount of Money £17,149 14 0
LAST SALE.—Average Standard ......£100 11 0.—Average Produce...... 8½
Standard of corresponding sale last month, 91*l.* 19s.—Produce, 9½

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	119	£ 586 12 0
Vivian and Sons	392	2803 1 3
Freeman and Co.	281	1621 7 6
Greenfell and Sons	888	4914 5 0
Crown Company	40	252 0 0
Sims, Willyams, and Co.	151	877 8 3
Williams, Foster, and Co	593	5034 18 0
Schneider and Co.	203	1060 2 0
Total tons	2670	£17,149 14 0

Copper ores for sale on Thursday next, at the Royal Hotel, Truro.—Mines and Parcels.—Consols Mines 632—Treviskey 505—United Mines 497—Perran St. George 368—Par Consols 296—South Tolgus 273—South Caradon 246—Trethellan 143—Treleigh Consols 125—Wheal Comfort 100—Wheal Mary 95—Wheal Ellen 87—Wheal Henry 54—Gonamena 33—Carthew Consols 18—Wheal Penhale 8—Wheal Courtenay 5—Pembroke 4—Wheal Tolgus 2.—Total quantity of ore to be sold, 3491 tons.

Copper ores for sale on Thursday week, at White's Hotel, Pool.—Mines and Parcels.—Wheal Seton 685—North Pool 604—Tincroft 579—East Wheal Crofty 461—Camborne Vean 460—Wheal Basset 448—Condurrow 358—East Pool 267—South Wheal Frances 224—North Roskear 160—Fowey Consols 155—Dolcoath 119—West Fowey Consols 84—South Crinnis 38—Wheal Busy 34—Grambler and St. Aubyn 15—Bell and Lanarth 9.—Total quantity of ore to be sold, 4700 tons.

MINING APPOINTMENTS DURING SEPTEMBER.

21. Pay-day at Consols, United, Seton, Treviskey, Comfort, West Buller, Fowey Consols, and Agar.
23. Par Consols sampling.
24. Tresavean, Trethellan, and East Crofty accounts, on the mine.
25. Carn Brea and other mines' sampling. South Tolgus account, on the mine.
26. Ticketing at Truro—Consols, United, and other mines.
27. North Pool pay, East Crofty setting, and Tincroft pay.
28. Pay-day at Tresavean, Trethellan, Grambler, North Roskear, Fowey Consols, Condurrow, Wheal Mary, South Tolgus, West Seton, and Tywarnhayle.

Haswell.—B. Richardson was thrown off the waggons at Haswell Colliery, when they passed over his body and killed him.—Mary Curry, wife of a pitman, was also so much injured by the coal waggons, that she shortly died.

Bishopwearmouth.—T. Prudhoe, a boy, attempted to climb the empty waggons at the Hetton Colliery, when he slipped, and was so much injured that he died the same night.

NOTICES TO CORRESPONDENTS.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

The promised illustrated description of the new machine for propulsion, "the Nova Motive," is unavoidably postponed, in consequence of pending arrangements of the patentees—it will appear in a week or two.

"A. N. R." (Stourport).—We shall be obliged for the particulars; as also for any further information he can furnish.

"Constant Reader" (Rotherham).—We apprehend there is no great difference in respect to the durability of sheet-iron for roofs, when covered either with tin or zinc, as both are subject to galvanic action, and decay when the smallest surface of the coated metal is exposed. Zinc is preferable, because cheapest. We think sheet-iron, covered with good metallic paint, better than either.

"B." (Leek).—the forest of Dartmoor belongs to the Duchy of Cornwall, and the revenues are appropriated to the Prince of Wales.

"W. M."—We do not think that a "full copy of the specifications of American patents, mentioned in last week's Journal," can be seen in this country. Apply to Mr. Campin, of 210, Strand, or some other patent agent.

"W." (Matlock Bath).—The letter respecting "the discovery" in a lead mine is not suited for our columns.

"J. E." complains that the price of the Alfred Consols as quoted in last week's Journal was incorrect; he states that instead of 38—40 they were 40—43. This may or may not have been the case; the information we give we endeavour to render as correct and as *disinterested* as possible; and the price we quoted was founded on the several returns made to our office.

"J. F., Mining Agent" (Cartmel, Lancashire).—We have forwarded a copy of the *Mining Journal*, containing the Collieries Inspection Bill in full. We do not know whether appointments have yet generally taken place.

"A Subscriber" (Cambridge).—There is a paint of a peculiar ferruginous nature, either black or brown, prepared by the Patent Alkali Company, Old Broad-street, which is peculiarly adapted for covering all kinds of iron work, and exceedingly economical. A notice of it appeared in the *Mining Journal* of August 10.

"A large Shareholder" can obtain the information he requires on application of the secretary—it is not at all usual to publish such details.

"One Interested" (Dublin) shall be attended to in our next.

RAILWAYS *v.* MINES.—Our space will not permit us to enter into the details of the subject, as suggested by "Facts;" yet we believe there is much truth in his remarks.

"An Electrician" (Cheapside).—The specification of M. Pulvermacher's patent, for improvements in the electric telegraph, appeared in the Journal of the 6th July last.

Mr. St. Pierre Foley's paper, on the Geological and Mineral Features of certain districts of North Wales, shall appear in our next Number.

CURABILITY OF CONSUMPTION.—A small pamphlet has recently been published by Dr. Ramadge, presenting the most prominent and important practical points in the diagnosis, prognosis, and treatment of the disease. Dr. Ramadge says, in his preface:—"At a very early period of my professional career, I was induced to devote my attention, almost exclusively, to the study of consumption and its allied affections, and my position, as physician to the Infirmary for Asthma, Consumption, and other diseases of the Lungs, afforded me the advantage of a very wide field of observation. New pathological views occurred to me, and suggested a plan of treatment which I soon found attended with the most signal success; and now, after an experience of upwards of 30 years, during which time not less than 30,000 cases of consumption, in all its various stages, have come before me, I have no hesitation in asserting—in contradiction to the opinion of many medical practitioners—that this disease, when properly, judiciously, and skilfully treated, is as curable as any other disease, the curability of which is not disputed." It is well-known that this disease has ever been pronounced incurable, and even hereditary; but many years since the illustrious Laennec published cases showing that nature effected a curative process in the lungs by the cicatrization even of extensive tubercular cavities, and that patients may recover after having had in their lungs tubercles which became softened and formed ulcerous cavities. Numerous instances of cure in all stages of life are given, and to all families who are rendered unhappy by the presence of this dreadful malady, we heartily recommend this little work, as calculated to give them the most cheering hopes.

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, SEPTEMBER 21, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

In another column will be found a letter from Mr. H. HARTOP, of Barnborough Hall, Rotherham, on the subject of the present lifeless and unremunerative state of the iron trade; and having received from that gentleman the pamphlet there alluded to, we now proceed to lay some of its contents before our readers. The subject of the relative qualities of hot and cold-blast irons has long been one of warm and sharp controversy, and numerous have been the communications which have appeared for years past in our Journal. Mr. HARTOP attributes the present depressed state of the trade to the strife and competition among the ironmasters, and the consequent production of iron of inferior quality. It is shown that, although hot-blast iron can be made with a saving of 12s. 6d. per ton in fuel as compared with cold, the iron so made is deteriorated 17s. 6d. per ton; and that after continued experience in the manufacture on a large scale, the closest attention paid by learned professors in chemistry, mineralogy, and geology, the value of hot-blast iron is greatly below that made by cold-blast in the smelting-furnace. In articles and communications in the *Mining Journal*, as long as seven and eight years since, it was shown that, by the use of the hot-blast, 6s. 0½d. saved in coals per ton of iron, the article became deteriorated from 25s. to 27s. 6d. per ton; and in Messrs. FAIRBAIRN and HODGKINSON's experiments, the following were the results on the several irons, each bar being 1 in. square, and 4 ft. 6 in. long between supports:—

	Breaking weight.	Impact resistance.
Oldberry cold-blast-iron	*Lbs.* 453	*Lbs.* 822
Oldberry hot-blast iron	543	549
Using the same coal and ironstone.		
Elsecar cold-blast iron	446	992
Milton hot-blast iron	353	538
Working in the same mineral field in North Wales.		
Ponkey cold-blast iron	567	992
Plaskynaston hot-blast iron	378	517

It appears to be a well-known fact, that since this description of iron came into use more castings have flown, or pulled themselves to pieces in cooling, than was ever before known; or, what was worse, flown in two or more places, perhaps after much costly work was laid out upon it. Whatever may be the results of experiments on a small scale, the every-day practice of experienced millwrights and ironfounders must be the most satisfactory; and it is here asserted, and has been repeatedly before asserted, that every unprejudiced man who prefers experience to mere opinion, will see the reason why hot-blast iron can be bought, at all times, at so much less than cold—just because it has no other chance of displacing cold-blast than that of its less price, which, in so many cases, enables a contractor, who cares not for strength or durability, to cut under one who will do things in the best possible style. Numerous heavy, serious, and fatal accidents are recorded from the breakage of machinery and beams of hot-blast iron; and if the trade is so inundated with a cold-short and rotten iron, because it can be rendered at a low price, we need not seek much further for the cause of a sad depreciation in the legitimate trade, and which naturally, like a plague, spreads itself around.

There is, probably, not an inchoate railway in the kingdom which makes a more unhappy and unfortunate appearance before the public, when its accounts are periodically presented, than that line which, by a lamentable misnomer, by a strange error in its local vocabulary, is designated the CORNWALL RAILWAY. So hopeless is the state of its affairs, that the shareholders think it waste of time to attend the half-yearly meetings, and the accounts and reports are received and laid on the table at Truro, *pro forma*—no one asking any questions, nor taking an interest in a wreck so utter and so complete as the staff of this ill-conceived line have at length made of it. By far the wisest, and, as we think, the most appropriate, course which its present managers could adopt, would be to apply under the Winding-up Act for powers enabling them to bring the affairs of the company to a close, and if there be anything left, to pay back the fractional balance, *pro ratâ*, to the shareholders. As it is, a sum of about 200,000*l.* has been paid up on this line and, upon the face of their own statement, there is scarcely a probability that a single shilling of it will ever re-enter the purses from which it issued. It is an entire loss—a total wreck—and the sooner the whole body of proprietors are released from any further responsibility in the premises, the better for them and their families, the world would say. Having spent about 98,000*l.* in Parliamentary contests against the Central line, and having defeated that useful project, having frittered away nearly as much more of its capital in salaries, in surveys, and in useless works, this line, we should think, might be very decorously withdrawn from public observation, and its name, by due legal process, erased from the list of surviving railway projects.

The coal owners of the north appear to "lay the flattering unction to their souls" that their monopoly of the entire coal supply to the great metropolis, and the southern districts of this island, is to last for ever. Long leagued together in an unholy band, to enhance the price to the consumer, and prevent each individual proprietor, some of whom might be imbued with a more liberal spirit, from doing business his own way, and exterminate him if he opposed the clique, they are just now endeavouring still more strongly to fortify the untenable position they hold, and to rivit still closer the chains of commercial slavery and despotism. At a general meeting of the trade, held at the Assembly Rooms, Newcastle, at which one Mr. HUGH TAYLOR presided, a report was read, which stated that the unfortunate proprietors of collieries were in the last stage of poverty and ruin, the present price of coals in the London market being 2s. per ton less than at the corresponding period of last year, when only partial regulations existed. It was further stated that, without the concurrence of all parties concerned in the trade, *no scheme for the maintainance of prices* generally remunerative could prove successful. The plan now proposed is to supersede the old plan of issues, and to estimate beforehand the several quantities to be vended in each month of the year, and to dispense with the services of a committee. Rules and regulations were then submitted, by which the collieries of Lords Londonderry and Durham, the Hetton, South Hetton, and Haswell, are to have a vend of 495,000 chaldrons yearly, and other collieries in proportion; a certain per centage of each vend is to be supplied every month—January and Feb., 6 and 7 per cent. respectively; March to July, and December, 8 per cent.; November, 9 per cent.; and August, September, and October, 10 per cent. It is here remarkable that in the three coldest months, December, January, and February, the average is the lowest, being only 7 per cent. This precious report was unanimously adopted, and it was resolved that the price of coals be advanced on Monday, the 16th inst., 2s. per chaldron; that meetings be held to arrange the price for each colliery, and that the secretaries do obtain the signatures of the representatives of all collieries in their respective districts to these regulations. The concluding portion of the proceedings was, at all events, the most pleasant in prospective; they invited the chairman to a dinner to be given at the next monthly meeting, and appointed a committee to conduct the getting up; determined, ruined or not, to eat, drink, and be jolly, and if they must have a short life they will have a merry one. Seriously, have these gentlemen ever dived into the statistics of the coal trade, or are they asleep to the changes which are taking place around them? We would call their attention to some details by Mr. BRAITHWAITE POOLE, in our Journal of August 10, and by Mr. LAIRD, in that of the 17th. They will there find that there are more coal-fields than in Durham and Northumberland, and should those counties be worked out to-morrow, and they are getting inconveniently extensive we know, we should be pretty safe for a supply for centuries yet to come. We have no hesitation in saying that on the completion of the Great Northern and South Wales Railways, the south of England, and coals for steam-boat purposes and exportation, will be supplied from the South Wales coal-field, and those of Lancashire and Staffordshire, from 7s. to 10s. per ton less than from the north, by which 1,000,000*l.*, at least, will be saved to the inhabitants of the metropolis in the article of coal alone. Coming by rail, they will arrive in larger masses, and there will be no pretence for raising the price in winter on account of storms, and frost, and blockade of the River Thames, but the cost to the consumer will nearly continue the same all the year round.

We have received several communications on the subject of some remarks made by us in the MINING JOURNAL of 7th inst., relative to the erection of a monument to the memory of the late GEORGE STEPHENSON; and the proposal is evidently being met with the most lively interest throughout the country. In the observations which we made on that occasion, there appears to be some misconception on the part of at least one of our correspondents. There is not a sentence in the paragraph in which even in the remotest degree we attributed the *invention* of the locomotive engine to STEPHENSON; and although we have ever supported the claims of Sir HUMPHRY DAVY to the discovery of the principle of the safety-lamp, certain it is that STEPHENSON's lamp—a modification of DAVY's, as first arranged—was generally at that period used in the coal mines of the north; and so safe was it considered, and tending so largely to the welfare of the colliers, that, in 1818, a silver tankard and 1000 guineas were presented him by the coalowners. It is now about 50 years since TREVITHICK completed his first locomotive, and ran it successfully in Cornwall. There can be no doubt he was the great originator. He gave his time, and spent his own and his friends' money, in the endeavour to advance this important branch of engineering science; and, considering the difficulties which in his day presented themselves against the obtaining works in metal sufficiently well executed for the employment of high-pressure steam, he may be considered the great pioneer towards perfection.

Like numerous other originators of practical ideas, which have led to the most brilliant scientific results, circumstances were against him, and he died poor; his achievements will, however, live in the immortal pages of engineering history, inscribed in characters of unmistakable import—*fiat justitia*. GEORGE STEPHENSON was more fortunate and successful; he followed up the experiments which he had many years been making, aided by his own instinctive genius, natural talent, indomitable perseverance, and almost unlimited assistance with capital; and what the result was our present railways show. But it must not be considered that it is proposed to erect a monument to his memory merely on account of his success with the locomotive; he has far higher claims. Not only was he a benefactor to the engineering science of the country, but his character and progress must be held up as a pattern to the rising generation in every future age; and where there is found precocious talent, chilled by poverty, withered by neglect, and discouraged by all the unpropitious circumstances which attend the endeavours of Labour's children to advance, let it be led to the proposed shrine, and be told the history of GEORGE STEPHENSON.

A case of some importance to mining adventurers was brought before the magistrates at the Llanidloes special sessions, on the 16th inst., a summons having been issued at the instance of Capt. W. Verran, an adventurer in the Rhoswydol Mine, against Capt. Edward Davies, the resident agent, and who is also an adventurer in the mine. From the evidence adduced, which, with the proceedings, occupied upwards of three hours; we gathered that on the 24th ult., the complainant, accompanied by two other adventurers, proceeded to the mine to inspect the same, with the view of communicating the substance of the information at a meeting of the adventurers, to be held in London on the succeeding Tuesday, but from some cause which did not clearly appear in evidence, a refusal was given by the defendant, Capt. Davies, on the ground, as was to be inferred, of some private pique or feeling existing between complainant and him. In the end the several parties left the mine without having accomplished their object, and the complainant having occasion to return to the count-house was accosted by the defendant, and a threat held out that if he should visit the mine alone, he would receive a welcome but little expected, inasmuch that the slime pit, contiguous to the count-house, was his doom, into which he would be thrown by the miners, and that there would be 150 men assembled for that purpose. Capt. Verran having returned to the party, who had proceeded onwards, and reported the communication made by defendant, the two gentlemen accompanying him returned to the mine, to ascertain from defendant whether such was the intention, when, as appeared by the evidence, he repeated the words, saying, "If he shows himself here, *we* will serve him out;" but subsequently observed, that in using the word *we*, he meant to apply the observation only to the men. He, however, repeated that if Capt. Verran came on the mine alone, he would not be answerable for his safety, or the security of his life; at the same time, if that he came merely as the representative of others he would take care to hold him harmless. The result was the summons being issued, and the case came on for hearing on the 16th, Mr. Hayward attending on behalf of complainant, and Mr. Bonsall on part of the defendant. After evidence being heard at considerable length, the magistrates ordered the defendant to find two sureties for 50*l.* each, and be bound over himself to keep the peace, in the additional sum of 100*l.*, for the space of 12 months.

Among the list of accidents in our columns this day, will be found a report of an awful explosion on board a vessel, laden with coal, in the port of Cardiff. Although the generation of carburetted hydrogen from fiery coals in the holds of vessels, and generally slight explosions, are by no means of uncommon occurrence, we never remember to have heard of one so disastrous in its effects, both in injury to man and destruction of property. The vessel is a complete wreck; and it is to be hoped will act as a warning to masters of coal craft, not only to use every proper means to ventilate the vessel's hold, but to prevent on every occasion lighted candles being introduced therein.

THE ATMOPYRE:

FOR CONVERTING GAS INTO FUEL FOR ECONOMIC USES.

Many have been the attempts and suggestions to substitute coal gas, and other combustible elastic fluids, for coal fires, as far more cleanly, more easily managed, and as giving a far more regular and quickly-adjustable temperature. None of the plans hitherto adopted have, however, met with more than partial success, such as the application of gas burners to hot plates, boiling liquids, &c. It has been reserved for Mr. D. O. Edwards, a member of the College of Surgeons, to hit upon a plan at once founded on the most scientific principles, with an adaptability of being applied to every purpose for which open coal fires have hitherto been employed. It is well known that flame is a hollow cone, its exterior being formed by the evanescent particles of carbon, which being, for the moment, precipitated in a solid form after the combustion of the hydrogen, and raised to a white heat, give out light in virtue of that transient solidity. This occurs the instant before the union of the carbon with the oxygen of the atmosphere, and their conversion into carbonic acid, which forms an invisible pellicle round the flame. The heat to which this carbonaceous shell is raised is very high, but as soon as it is engendered, it is carried away by currents of the surrounding atmosphere. The possibility of arresting and detaining this heat was the problem the inventor proposed to solve. Meditation on the Davy safety-lamp afforded a clue. This lamp is a chamber, which, when its preserving agency is required, is filled with flame; the walls are perforated with minute holes, through which air and gas freely pass, but which are impermeable to flame. The incandescent gas, in its transit through these apertures, is robbed of its heat, the flame is extinguished, and the heat is developed in the wire-gauze, which becomes red-hot. Here, then, was the principle; the material suitable was the next consideration; all the metals are too oxidisable, except platina, which was too expensive; a mixture of one-third china-clay, and two-thirds common pipe-clay, was employed. Cylinders of various sizes, from 2 to 4 in., were formed of this material, perforated with numerous orifices, and having a circular opening at one end, to screw on to a No. 4 gas burner. This cylinder, or hood, is the converse of the Davy lamp, the gas being inside instead of out; and on escaping through the holes, and fire being applied, the hood, in one minute, becomes red-hot, having the appearance of a mass of red flame; but an aggregate or battery of these hoods, placed in a circle, and covered with a case, are heated to an orange colour, and a temperature has been obtained sufficiently high to melt the more refractory metals—gold, copper, iron, &c.

For warming apartments, this appears to us the most cleanly and efficient means ever yet proposed, and the inventor applies it in the following manner:—A battery of 12 "hoods" is enclosed in an earthenware case, which, becoming heated to 500° Fah., forms a repository of heat. This is placed in an outer case of china, terra cotta, or any other ornamental ware. The products of combustion are carried away by a small pipe into the chimney. The fresh air is brought from outside the dwelling through a tube about 6 in. diameter, which communicates, by means of a valvular iron plate, with the space between the two cases. The air ascends in this area in large quantities, is warmed in its transient contact with the inner case, enters the room through large holes in the top of the stove, at a blood-temperature, and spreads equally through the apartment. The fire presents a cheerful aspect through the wide orifice of the stove, which is covered with glass, and is visible to every inmate, and the expense of such a fire is 6d. per day, at the present price of gas.

This new fire is applicable to every variety of culinary operations—to roasting, boiling, baking, broiling, frying, stewing, and toasting, affording a steady, and easily adjustable heat. As roasting by this method is effected in close chambers, an idea may prevail that the meat is only baked, but such is not the case. In roasting, a heat of about 350° Fah. is sustained at the surface of the joint, which is slightly charred; the fluids in the interior of the meat are raised to a temperature of 212°, and the flesh is thus boiled in its own juices. The internal heat can never be above 212°, the boiling point, because at that point liquids are converted into steam, which never imparts, in its natural state, a higher degree of temperature. The atmopyre is undoubtedly an economic source of heat for all domestic purposes, can eventually be brought into use for all manufacturing uses, and as an agent for the prevention of smoke will be invaluable. Applied to refining gold and silver, the furnace may be kept up at an expense of 2d. per hour; in this case the argillaceous envelopes are doubled and trebled, to insure an accumulation of heat equal to what is known as the "wet" heat. To produce steam, 50 ft. of gas consumed per hour is equal to one-horse power, and this heat increases at a given direct ratio with the size of the furnace. As coal gas can be safely compressed into one-sixtieth part of its bulk, the atmopyre is applicable to steam-boats without exception, whose voyages are limited to 20 days. The heat of the atmopyre is so susceptible of exact regulation, that the most delicate aromatic herbs have been desiccated by it. It affords efficient means of purifying bedrooms, and warming every description of apartment or puplic or private building, and is most important in a sanitary view. Add to this, it not only possesses great cleanliness, but that great desideratum to an Englishman's fire-side, a cheerful fire, is hereby eminently obtained, for we can imagine nothing more brilliant than a battery of a dozen of these cylinders glowing in an intensity of incandescence. The following is an extract from a letter to Dr. Faraday, containing details of some of the experiments.

Mr. Palmer, the engineer of the Western Gas Light Company, writes me the following account of some experiments made by him:—

1. The gas was turned on to the 12 burners or "hoods," and the flames adjusted to blue small jets, which produced a flickering explosive combustion.

2. In three minutes the "hoods" had all acquired a dull red heat, and in 7½ minutes the concentric cube or cylinder surrounding the "hoods" had acquired the like temperature.

3. The combustion of the gas was so perfect, that the "hoods" were not discoloured by undecomposed carbon.

4. In 17 minutes the average temperature of the large room, containing 8551 cubic feet of atmospheric space was raised from 65° to 70° Fahr., whilst the extraordinary small quantity of 2 cubic feet only of gas was expended. It is necessary to remark that there was no ventilation in the room during the said 17 minutes above the fire-places, the ventilators nearly level with the ceiling having been both closed, and the entire products of combustion were not permitted to escape. The apartment, for want of ventilation, had become rather unpleasant to the respiration. Reasoning upon the extraordinary amount of heat developed in Mr. Palmer's experiment, it occurred to me that if this amount of heat could be concentrated in a small compass, an enormous furnace could be produced, and I accordingly constructed a small furnace, consisting of 12 "hoods," inclosed in an earthenware cylinder of 6 inches diameter, and built in an oven of Stourbridge bricks, of 6 inches thickness; the interior area measured 8 inches cube, or 512 cubic inches. In two hours after this little furnace was kindled, a heat equal to the melting of silver was produced. In four hours its maximum heat was apparently produced, there being no indications of increased temperature on the surface of the little kiln afterwards. In 36 hours the iron burners in which the earthenware "hoods" were placed, were partially fused, being inseparably united to the earthenware.

IRON TRADE OF BELGIUM.—Since the modification of the French import dues on Belgian iron and coal rapid progress has taken place in the iron districts. The arrangements entered into by the large ironmasters and railway companies, whose works had been suspended for want of funds, has given a great impetus to the trade, and business generally. To ease the pecuniary position of the railways, the ironmasters have taken shares at market quotations, in pay for their iron, which has enhanced the value of the railway property. The alteration in the tariff has also caused a large demand for Belgian coal for the French railways. The carrying out the project for supplying Paris with water similar to London is said to cause a great demand for iron pipes. It is said the French Government are anxious to carry out a new treaty of commerce with England of a more favourable nature, as to metals and machinery, than at present, and that it will be most likely carried into effect during the next year.

MINES AND MINING.—No. II.

BY EVAN HOPKINS, C.E., F.G.S.

Nothing can be more repulsive to the feelings of respectable shareholders, and tending to shake confidence in any mining speculation, than periodical puffing. Good mines and fair speculations require no such artificial means to sustain them. When the sett is taken, and the parties formed to try any given mine (of the legitimate character), it is understood, amongst business men, that the first measures to be taken are, to decide on the most economical mode of exploring the ground, to obtain reports from practical men, to consider the best system of working, and to name a mine captain to carry the same into effect. This being done, plans and sections are prepared, on which the monthly progress is shown, and reports describing the character of the ground, &c.

Where mines are well managed, the captains lead an easy life, as compared to those who are in charge of mines irregularly established and badly paid. In the former, everything is made so clear, so well explained, that a committeeman, or a director, has no reason to interfere nor complain; on the contrary, always satisfied with the management, even when a mine proves unproductive. But, if a mine is taken, and put to work without plan or system, sinking "perpendiculars," then "underlayers," cross-cuts without number, the captain bewildered in a labyrinth of irregularities, and called to quiet the shareholders by a repetition of "kindly promises," each one requiring fresh embellishments to give effect, it is not a matter of surprise that proprietors interfere.

There is a great difference in the abilities of captains to manage a mine. A very ordinary working miner, but strict in his duties, is far better than a good working miner who is of irregular habits. I have had men who considered themselves first-rate miners, but possessing no judgment whatever of the true character of the lode in which they had to work; they would sink a perpendicular shaft to cut a lode underlaying 45°, with strong walls, and then, after cutting it, sink in the underlay, as if the object was to increase the number of angles. Were we to explore the coal seams and iron ore on such a system, they would be ruinous speculations. Cases have come under my immediate attention, where we have not only abandoned perpendicular shafts and cross-cuts in hard barren rocks, but also the direct underlayer and kibbles, and adopted the system of incline planes in the diagonal of the parallelogram of the sett, and on the course of the dip of the bunches; and, by these means, mines that were working at a great loss have been rendered very profitable. Again, with respect to the proper separation of the ores underground, and the subsequent mode of dressing, especially in tin ores, and those of similar mechanical character, many improvements have been introduced, by which mines that could not pay by the old method are now making respectable profits. In those establishments, the object of the director and his agents was, and is, to rival each other in perfecting or improving the works under their respective charge, and not in merely writing reports.

We judge of the captain's capabilities by results—the system of his proceedings—by the economy gradually introduced in his underground operations; his "tut" and "tribute" cost, compared with the character of the lode, his accounts of the same, and general discipline. A genuine mine captain, a person of sense and sound judgment, never shows *airs* to those who wish to see his works. They invite inspection, because by this means only the really superior and honest captain can be known. A "kitter" knows a great deal about the *secrets* of mining, and many an useless miner can talk well, and persuade the uninitiated capitalists that he is, not only the only one that knows anything about mining, but to *his* fancy, everything else in the world. Those are the kind of persons, generally speaking, who are made instrumental in taking up setts, and by feeding their vanity, made to write reports suitable to the views of their leaders, and thus contaminate, too often, the column under the head of "Mining Notabilia" in your Journal. Steady producing mines are scarcely heard of, excepting when they are drawn to embellish some neighbouring spec. It is the most worthless that makes the most noise. The mining speculator requires extreme caution at this moment, and it is pleasing to observe, that they are not so easily caught, and more prepared to give proper support to all legitimate business, when well managed.

MINING COMPANY OF WALES.

It is next to impossible for those who watch the progress of events, and the more predominating manifestations of the public mind, as detailed in the columns of the periodical press, not to be forcibly impressed with the rapidly-increasing revival of that spirit of business enterprise so characteristic of the British nation. The severe blow dealt by the somewhat sudden recoil of the railway mania on its ill-fated votaries, verily paralysed but for a season the vital energies of the monied interest of old England. With a bound and an elasticity, worthy of its world-wide celebrity, we behold it again rising, like a resuscitated giant, in all its pristine strength and glory, and eagerly seizing on every legitimate engine, that gives fair promise for the useful and profitable employment of superfluous wealth, or that may tend to impart new life and activity to the vast natural resources of our highly-favoured isles.

Yes, it is cheering, most cheering, thus to witness the effectual breakings up of those dreary ice-fields which have so long blocked up the channels of productive industry, and retarded the progress of pregnant enterprise—to see their retardative fragments fast floating out into the sea of oblivion, or rapidly melting away beneath the genial rays of a revivifying national prosperity. Encouraged by this refreshing aspect of the monied and mercantile community, we may now daily observe men, or knots of men, of spirit and of progress, introducing useful prolific schemes and noble undertakings to public notice. Of the numbers of this character which have recently sprung into existence, there are few which can compete—as regards boldness, comprehensiveness, and practicability of character—with the "Mining Company of Wales."

The enterprising originators of this great and fruitful project have, at an expense of several thousand pounds, been arduously employed, during the last two or three years, in opening and proving a number of copper and silver-lead mines, slab and slate quarries, situated in the several celebrated mineral counties of Carnarvon, Merioneth, and Cardigan. In a number of instances, their praiseworthy labours have proved eminently successful; and their mining engineer, &c., Mr. St. Pierre Foley, of Irish mining and geological celebrity, has lately effected a selection of their very best and most productive mines and quarries to form the basis of the company, now offering its rich and abounding mineral resources to the attention of the capitalist.

It is proposed to raise a capital of 120,000*l.*; and also that the energies of the company shall at once be directed—not in exploring, but to the effective working of their several mines and quarries, set forth in the prospectus, as those of established value and reputation, and which, it is most clearly and satisfactorily demonstrated, will immediately realise large returns. Indeed, it would appear that the *substantial* character of this grand undertaking—as a safe and permanent investment for capital—is already making rapid strides in the estimation of the public; the allocation of shares since the commencement (though the prospectus has not as yet been circulated) having proceeded not only satisfactorily, but vigorously.

We heartily wish the present, as we very naturally must every undertaking of the like effective and pregnant character, every possible success; and the more especially so, as its primary object is the development of our own rich inexhaustible native mineral treasures. The principality of Wales is now found, and generally acknowledged to be in this respect, second only to Cornwall in metallic ores; whilst several of her slate quarries are realising clear profits of 30,000*l.* and 40,000*l.* per annum, and upwards! And these are the sort of comprehensive enterprises which alone are required to filch her entombed riches from their secret recesses, in the bosom of her beautiful and diversified mountain ranges, and to disseminate them abroad, to the encouragement of industry and the general benefit of mankind. This remark reminds us how prolific of utility and comfort, how illimitable in its happy progressive realisations, can the wealth be rendered which sometimes flows from one mine alone!

Sir Hugh Middleton, some two or three centuries ago, in this very region, realised a clear profit of 2000*l.* per month from his Cwm-Symlog Mine, in Cardiganshire, and which he most patriotically expended in bringing the New River from Hertfordshire, to allay the thirst, and improve the sanitary condition, of untold generations of beings, inhabiting, and to inhabit, our mighty metropolis!

Nevertheless, almost ever since that remote period, to within the last 10 or 12 years, the richest mineral districts of Wales have been permitted to lie, as regards such treasures, in an almost dormant state! A very few companies, during this latter interval, have been very unmolestedly and quietly—we had almost said *slyly*—pursuing their most profitable mining avocations amid Cambria's very richly-stored (as the weekly columns of the *Mining Journal* amply attest), and sometimes remotest, mountain tracts. The last year or two have, however, opened the flood gates of competition; and these little snug *coteries*, so long in the enjoyment of a sort of monopoly of Cambria's hidden sweets, are beginning to look around them in amazement at the unwonted innovation of enterprising spirits. Still not a little reluctant to believe, they are, at length, actually, very palpably, witnessing the truth of the quaint old adage, that, sooner or later, "*Where there* IS *honey, there* WILL *be bees.*"

THE TRUCK SYSTEM.

In reference to an article which appeared in the *Times* of Monday last, intended as a sort of commentary upon Mr. Tremenheere's report on the state and condition of the colliers and miners of Bilston, "A Lover of Truth" writes—"I agree with the remarks, with one exception—that is, 'that the truck system is allowed to flourish, though modified in the form of its operations, is a general complaint of the more honourable proprietors who pay the whole of their wages in money.' I am not interested at all in the discussion of this important subject, but having lived in this neighbourhood for upwards of 30 years, I do not think myself a stranger to the habits and customs of the workmen in this vicinity, and with a full knowledge of the facts which I am about to state to you. I do not think that there is in the whole district any coal or ironmaster who does not profit, either directly or indirectly, from their workmen being paid in goods or ale. I will only state one circumstance, and leave the same with the public to judge if the appellation of the word 'honourable' is well applied to those coal and ironmasters in this district who nominally pay their wages in cash; or, would not the name be equally as well applied to those masters who, from circumstances and facilities afforded to them, are able to supply their workmen directly with goods at prices beneficial to both workmen and master? And upon this ground I contend that it is a mutual advantage for masters to supply their men with different articles of consumption. I will now state to you a circumstance which will explain to you how the nominally 'cash' paying master derives a benefit from the workmen being paid in goods by their contractors or butties. Suppose, that in opening a colliery, of which the proprietor nominally pays his men in cash, a pit is to be let—that is, to be worked at a price to be agreed upon per ton by the butty and the proprietor's mine agent; it is made known by the mine agent that such a pit is to be let; and one contractor, or butty, applies who does not keep either a beer shop or grocer's shop, and states to the mine agent he cannot afford to get the coals down the pit, and deliver them on to the bank for less than 4*s.* per ton; another butty applies who does either keep a beer shop or grocer's shop, and perhaps both, and states that he can do the same labour, and deliver the coals to the same place as the former, for 3*s.* 6*d.* per ton. Whose pocket does the 6*d.* per ton go into? And with the knowledge of such a fact to the proprietor, how can he say 'I do not truck my men?' In conclusion, I confess I do not see the difference between the master paying his men in truck directly and openly to the world, and the master allowing his butty to do it, except that in the former case it is more favourable to the workman. The above circumstance is only an illustration of the many which occur daily in this district."

THE JOINT-STOCK BANKS.

A considerable share of attention is beginning to be directed to the steady progress which the London joint-stock banks have, for some time past, been making, and to the very satisfactory financial position to which this useful class of institutions is rapidly attaining, both as regards the dividends paid to the proprietors, and the amount of the guarantee funds. In this respect, it is curious to note the contrast presented by the two classes of joint-stock undertakings—railways and banks—and to remark that, whilst railways, which, at the outset, promised so magnificently, and paid 8 and 10 per cent. dividends, have retrograded gradually to 5, 4, 3 per cent., and *nil.*, the banks have taken a course precisely opposite, and, from very small beginnings, have mounted up to 8 and 10 per cent. dividends (inclusive of bonuses), besides setting aside annually large reserved funds to meet contingencies. This contrast in the results speaks loudly in favour of the system of strict and searching *surveillance* to which the operations and accounts of the banks are subjected, as opposed to the disgraceful lax system that has characterised the management of almost every railway company in the kingdom; and it is, at the same time, calculated to nerve shareholders to fresh exertions for the enforcement of a stringent system of reform in the management of their property. It is probable that some general standard will soon be fixed with respect to the extent to which the net or reserved fund should be carried; and as soon as this fund shall in each case have reached its maximum, the whole of the profits of the joint-stock banks will, of course, become available for dividend.

The subjoined table shows the present position of the guarantee funds of the different London joint-stock banks, and the proportion which they bear to their capitals and liabilities. It will be seen that the banks standing the highest on the list are the London Joint-Stock and Commercial Banks:

Banks.	Guarantee Fund. On capital.	On cur. accts. & dep.	Dividend.
London Joint Stock Bank *per cent.*	22½	4 7-16	6 per ct. and a bonus of 7s. 6d. in Jan.
Commercial Bank of London	17½	3⅝	6 per cent. and a bonus of 7s. 6d.
London and County	14½	1½	6 per cent.
Union Bank of London	11½	1½	6 per cent.
London and Westminster	10⅝	2½	6 per cent.

New Locomotive.—An American correspondent informs us that an engine, called the *Dummy*, has just been used on the Hudson River Railroad. There was no machinery to be seen, no smoke, no noise—it merely appeared like a huge square box, mounted on 12 wheels; and as the steam is condensed, and carried back to the boiler, there was no signs of even a steam-engine. The engine is said to have run six miles an hour; and was as easily stopped and started as an ordinary locomotive. It is expected to run permanently. We hope shortly to receive a description of the *Dummy* for publication.

Sale of Materials at the Britannia Bridge.—It will be seen from an inspection of our advertising columns, that the gigantic plant which has been employed in the erection of the most extraordinary bridge perhaps in the world, will shortly be brought to the hammer. The vast character of the whole of the materials employed, and comprising every description of tool and machine, from the steam-engine to the brad-awl, will render a copy of the catalogue a curiosity in its way, and which will no doubt attract a vast concourse of persons connected with railways, particularly contractors, as everything is new, and suitable for every description of the most important works.

The Great Explosion at Seaford.—In consequence of the only barrier against the inroads of the sea—a small bank of shingle, at the Cinque Port town of Seaford, evidently gradually becoming weaker, it was determined by the Board of Ordnance to project a huge slice of the chalk cliffs adjoining on the beach, with a view to constitute a barrier, and prevent the shingle from being washed from the bay. Thursday last was the day fixed for the blast to take place, and the following were the preparations made: The spot selected is not much above half-a-mile to the east of Seaford. At a height of about 50 feet above high water-mark there was driven into the cliff, or excavated, a tunnel or gallery 70 feet long, 6 feet high, and 5 feet broad, ascending with a slope of 1 in 3. At the inland extremity it turned right and left in the heart of the cliff, above 50 feet one way and above 60 the other, with a more gentle ascent, the two smaller galleries being 4 ft. 6 in. high and 3 ft. 6 in. broad, and the three being in the form of a capital T. At the utmost end of each of the side or cross galleries was a chamber, 7 feet cube, lined with wood; and in each chamber a charge of no less than 12,000 lbs. of gunpowder was deposited; making the distance of the centre of the charge 70 feet from the face of the cliff towards the sea, and about 70 feet above high water-mark. The galleries were "tamped," that is, stopped up, with bags of sand, and chalk in bags and loose, to within 50 feet of the mouth, both branches being tamped up, and 20 ft. down the large gallery. The tamping is, of course, a very important matter; the hole through which the charge of powder is deposited should offer more resistance to the force of the exploded powder than the solid earth, in order that the powder may not find vent through that entrance, but spend its power upon the earth to be cast up; and this may be the better accomplished where the firing is by voltaic battery, because there is only a thin wire to pass through the tamping for the purpose of ignition. It must be added here, that above this charge of powder, and on the top of the cliff, three shafts or pits were sunk to the depth of 41 feet, and 600 lbs. of gunpowder deposited at the bottom of each; these pits were tamped with chalk. Very near these pits—perilously near it seemed—about 180 feet from the edge of the cliff, a small wooden shed was erected, in which were placed three voltaic batteries, two of Groves's and one of Smee's, for firing the charges; the wires, to convey the electric fluid to each charge were covered with tape, and varnished or tarred over; the wires to the two lower charges in the chambers were, of course, carried over the top of the cliff. It was arranged that these two great charges should be fired simultaneously, and the three a few moments afterwards. At 12 minutes past 3 o'clock the whole cliff suddenly, along a width or frontage of some 120 feet, bent towards the sea, cracked in every direction, crumbled into pieces, and fell upon the beach in front of it, forming a bank, down which large portions of the falling mass glided slowly into the sea for several yards, like a stream of lava flowing into the water. The whole multitude upon the beach seemed for a few moments paralyzed and awe-struck by the strange movement, and the slightly trembling ground; every one sought to know with a glance that the mass had not force enough to come near him, and that the cliff under which he stood was safe. There was no very loud report; the rumbling noise was probably not heard a mile off, and was, perhaps, caused by the splitting of the cliff and fall of the fragments. There seemed to be no smoke, but there was a tremendous shower of dust. Those who were in boats a little way out state that they felt a slight shock. It was much stronger on the top of the cliff. Persons standing there felt staggered by the shaking of the ground, and one of the batteries was thrown down by it. In Seaford, too, three-quarters of a mile off, glasses upon the table was shaken, and one chimney fell. At Newhaven, a distance of three miles, the shock was sensibly felt. The mass which came down on Thursday is larger than was expected; it forms an irregular heap, apparently about 300 feet broad, of an height varying from 40 to 100 feet, and extending 200 or 250 feet or more to seaward, which is considerably beyond low water-mark. It is thought that it comprises nearly 300,000 tons. The operation is considered to have been decidedly successful.

LIFE ASSURANCE.

Ten years ago we almost despaired of seeing the principle of life assurance carried out to its legitimate ends. Not only had its most useful and sublime capabilities been overlooked, but even the management of it, in a *financial* point of view, had not been understood. Life assurance was regarded as nothing more than a trade in the risks of frail humanity; and a life was *underwritten* (to use the technical expression) with no more reference to the social happiness of mankind than if the man assured had been a ship. In the various voyages of life it had been ascertained that there was in the long run an average amount of perils to be encountered, that out of a given number, and of a given age, a certain proportion would "go to the bottom" in a given time, from accident or wear and tear; and nothing more had been studied than how to make the aggregate of premiums exceed the aggregate of losses, and leave a handsome profit behind. A life assurance company thought no more of promoting the comfort and improving the habits of society than an underwriter at Lloyd's thinks of promoting the interests and improving the morals of our merchant-seamen. The whole system was selfish; to make a profit was the only consideration, utterly unadulterated by the higher consideration of how that profit could be made conducive to the welfare of those from whose good and provident feelings it was derived. The moisture given out plenteously, though almost imperceptibly, by the soil did not descend upon it again in genial dew to bless and fructify it anew. All was absorbed and retained by a speculating proprietary, or else engrossed by a body of "original policy holders." Nor did the old societies know how to turn these unjust advantages to a proper account *financially*. They sacrificed even their own selfish interest to the ostentation of possessing large accumulated funds, which were at once needless for their security, and unsusceptable of profitable employment. In short, while the business of life assurance was monopolised by them, its capabilities of being made the instrument of the "greatest happiness of the greatest number" were neither perceived nor cared for. It was neither a branch of philanthrophy nor of science.

"What," it may be said, "did not Price and Morgan elevate life assurance into a science?" Our emphatic answer is, *no*. Morgan certainly wrote a most learned book on life assurance—so learned that none but those who, like ourselves, are capable of reading the French book from which it was pirated, *De Moivres Théorie des Probabilities*, can possibly understand a single page of it. But what of that, even if it had been his own? Every one of his calculations proves that as a working actuary he went against his conclusions as a speculative mathematician. He did not dare as an actuary to carry out what a science, as unerring as the law of gravitation itself, and subject to far less disturbances, taught him. He was under the pressure of a worse than proprietary body—a body of sceptical and at the same time selfish policy holders. He threw all his mathematics over the bridge, and resolved to keep on the safe side, however wide such a resolution might take him from the mark he ought to have aimed at. Riches—or rather funds—almost insupportable accumulated upon him in consequence. Three times in the course of 30 years was he compelled to relieve himself of the burden by reducing the premiums 50 per cent., so that, in fact, the present premiums of the Equitable are only just one-eighth now of what they were at first. There was little science, therefore, in the matter from the beginning; and see what this absence of science has occasioned. The only science now studied by the Equitable is, not how to promote life assurance, but how to employ the millions with which, from never having studied how to appropriate the profits amongst those who have contributed them, they are at present encumbered. The real actuary at the Equitable now is their stock broker. Could science have brought things to such a pass at that? And after all what does the term "science" mean? Its derivation is from a word "*scio*" "I know." Science is, therefore, not "learning" in the abstract, not merely Taylor's theorem or Herschel's *Theory of Differences*—it is knowing how to apply that knowledge to some useful or beneficial purpose.

We have before us a book, *Prospectus, Reports, Tables, &c., of the Professional Life Assurance Company*, just published, which exhibits more of the real science of life assurance than all the treatises ever written upon it. This seasonable *brochure* shows you the problem practically worked out. The simple condition of the problem is, "granted that for the sake of security you must charge higher premiums than are absolutely necessary, how is the surplus to be returned amongst the shareholders and policy-holders in the most fair and beneficent manner? The actuary of the Professional has solved it. By his plan—

The assured are, at every division of profits, entitled—

1. To a sum, applicable at option, either as an addition to their policies, as a diminution of their premiums, or as an immediate money payment, after the rate of ..... £50 per cent.
2. To a sum applicable as a relief fund, after the payment of five consecutive years' premiums, either to themselves, or to their widows, or to their orphans, after the rate of ..... 10 per cent
3. To a sum applicable to the ultimate conversion of the corporation into a "Mutual Life Assurance Company," when all its affairs will revert to, and be vested in, the assured, after the rate of ..... 15 per cent.

Making, in the aggregate, a sum of 75*l.* per cent. distributable among the assured at every division of profits.

The shareholders, in consideration of the guarantee of safety and certainty, afforded in the first instance to the company, by the advance and subscription of capital, are entitled—

1. To participate in the profits, after the rate of ..... £25 per cent.
2. To 5*l.* per cent. upon the capital invested by them; as also, in common with the assured, to a participation in the 10 per cent. appropriated, out of the profits, as a relief fund; both of which benefits, whether their lives shall have been assured in the office, or not, even although their shares shall have been absolutely sold and disposed of, and their connection with the company entirely and long previously closed and abandoned, shall, in case of need and adversity, be applicable to them, or to their widows, or to their orphans.

Is the problem solved now to the satisfaction of our readers? if not, the following explanation will clear up all doubts:—

In proof of the vast results to be achieved by well-conducted and honourable life assurance societies, it may be stated that three offices divided, during the last year (1849), among their assured and shareholders, as the clear surplus gains of five years' operations, sums respectively ending 139,000*l.*, 168,000*l.*, and 188,000*l.*, whilst many offices attain even much greater results than these. Now, supposing that the Professional should, at the period of its first division of 1854, attain but one-third of the above prosperity—that is, suppose the profits should amount to only 50,000*l.* Let us proceed to divide this 50,000*l.* according to the provision of the Deed of Settlement, and ascertain by facts and figures the practical working and superiority of this institution.

Of this 50,000*l.* there would be for distribution—

Among policy holders, one-half	£25,000	0	0
As a relief fund, one-tenth	5,000	0	0
As a reserve to purchase up the shares, three-twentieths	7,500	0	0
As profits to shareholders, one-fourth	12,500	0	0
Making altogether	£50,000	0	0

Here then is a simple exhibition on the mode of appropriating the hypothetical surplus profits, amounting to 50,000*l.*; one item of which is a sum of 5000*l.*, the interest of which is divisible, annually, among distressed policy-holders and proprietors. If the rate of interest be reckoned at 5 per cent per annum, a fund of 250*l.* will have been created, to provide annuities for parties in the hour of want.

The preceding quotation goes to the possibility of certain advantages. Now for the certainty of them:—

Let ten persons be supposed as the number participating in this boon. Let five of these persons be considered as parties who, although once policy-holders, upon the whole term of life scale of premiums, have long since ceased to be connected with the company—it is immaterial from what cause—and fallen into decay. Let the other five recipients be parties who, at one period were connected with the company as shareholders, and whose lives may, or may not, have been at some time previously assured. Of these five shareholders, let one be supposed to have held five shares; another ten shares; a third fifteen; a fourth twenty; and a fifth twenty-five shares—making a total of 75 shares; this is an average among them of 15 shares each, which at 10*s.* per share yields a capital of 37*l.* 10*s.*; the interest upon which, at 5 per cent. per annum is 1*l.* 17*s.* 6*d.*

Each of the five assured would, therefore, receive 25*l.* per annum, making the yearly sum to be distributed among them	£125	0	0
The first shareholder would receive 25*l.* increased by 2*s.* 6*d.*, the interest upon his five shares, making his annuity altogether	25	2	6
The second shareholder would receive 25*l.*, increased by 5*s.*, being the interest upon his ten shares, making his annuity altogether	25	5	0
The third shareholder would receive 25*l.*, increased by 7*s.* 6*d.*, the interest upon his fifteen shares, making his annuity	25	7	6
The fourth shareholder would receive 25*l.*, increased by 10*s.*, the interest upon his twenty shares, making his annuity	25	10	0
The fifth shareholder would receive 25*l.*, increased by 12*s.* 6*d.*, the interest upon his 25 shares, making his annuity	25	12	6
Making a total annual sum of	£251	17	6

Distributable among ten persons, five of whom are reduced shareholders, receiving these valuable and substantial advantages and benefits, at an additional expense to the company of 1*l.* 17*s.* 6*d.*—thus proving the practicability of the system, and the great importance of persons connecting themselves with this corporation, whether as assured or shareholders.

We have said that 10 years ago we despaired of seeing the principle of life assurance carried out to its legitimate ends. We have said that its most useful and sublime capabilities were then overlooked. It is no longer so—the Professional has impregnated the whole system with the germs of what will be fruit for society hereafter. Why is it that life assurance has been so limited? Simply because it has not been understood. No, not understood; and the book we are now criticising will make it more understood—*felt*—than all we could write. The understanding of the man is nothing without the feeling of the woman. Enlist the woman's anxious and generous feelings, and the man will then make any sacrifice of the mere money of to-day. The truth is, that life assurance ought to be, is, more a woman's question than a man's; and for the first time the Professional has made it so. What should we care about the 1400 shareholders, if they were merely selfish men striving to suit a temporary purpose? A great proportion are women: and life assurance is their peculiar mission. It is for woman to use her gentle but powerful voice—it is for her to remind the husband that a day of old age is certain, or a day of misfortune possible—it is for her to tell her sons and daughters that the best economy is to have their lives assured in youth—it is for her to talk the matter over with all her female friends so as to make them react upon their husbands and sons—in eloquence,

no amount of science can ever equal that. If the 1400 who are the shareholders of this important company were merely prudent men, we could not speak so highly in its favour; but a great part of the shareholders are wives and daughters, and it is for them to be the missionaries of the good work. It is not on the Exchange that the work is to be done—it is by the fire-side at home; the woman's throne is there, and her influence there is a blessing. That blessing the Professional will be the instrument of diffusing widely and largely. The book before us will bring life assurance to the hearts and hearths of every domestic circle into which it is introduced. Without the fear of being thought profane, we can say that it is the *moral* bible, which ought to have a place by the *sacred* one; for as the latter tells us what we ought to do, the former shows how what we ought to do is to be done. Of the success of an institution capable of so much good, it would be a libel on human nature to doubt.

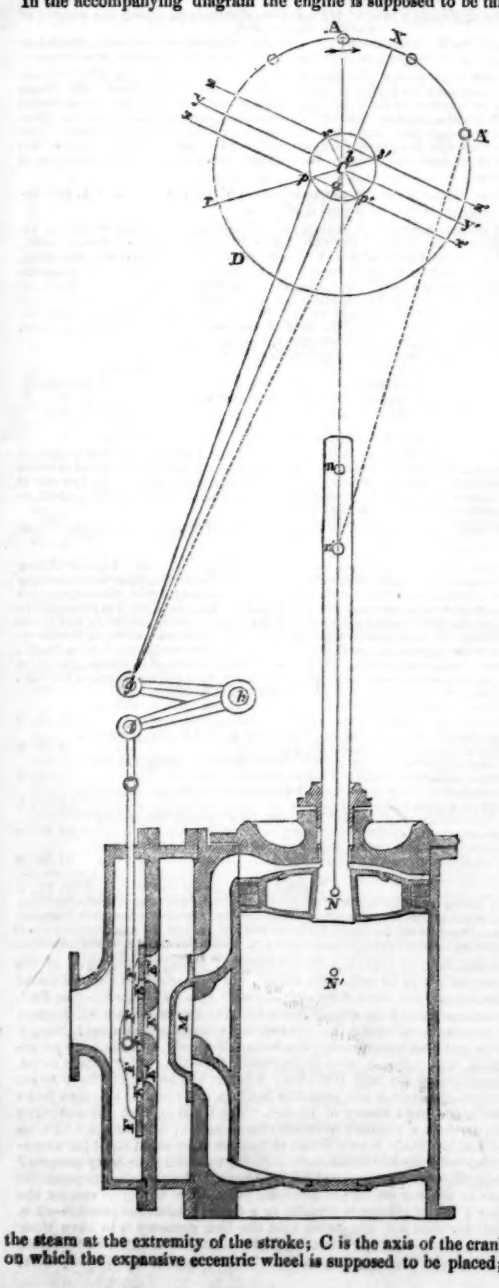
IMPROVEMENTS IN STEAM EXPANSION GEAR.

The discovery of the advantages to be obtained by cutting off the steam before the end of the stroke of the piston, and thus allowing the expansive power to complete it, is due to Watt; and, although not generally known, this, like many other great improvements, was most probably accidentally brought to light. To moderate the force of the single-acting engine towards the end of the stroke, and prevent destructive shocks, it struck him that the object would be effected by cutting off the steam before the piston reached the top of the cylinder; and, in working on this principle, he very soon discovered that the obtainment of a greatly increased power, in proportion to the fuel consumed, was the result. It was in a patent taken out by Watt, for improvements in the steam-engine, in 1781, five years after its discovery, that this principle of expansion was introduced; and the gearing for operating on the valves, although, of course, greatly simplified and improved up to the present day, does not possess facilities for securing all the advantages inherent in the principle of the application of steam expansibility.

In marine engines, the expansion of steam is effected either by the steam slide or by the cam-motion expansion slide. When the steam slide only is used, the steam is not usually *cut off* at less than two-thirds of the stroke; and to obtain the remaining small degree of expansive action through about one-third of the stroke only, the danger of breaking down the engine is incurred, by the liability to water being confined in the cylinder, or else the steam does not act with its full force on the piston, by reason of the steam-ports not being fully opened; and in all cases, the very limited extent to which steam is worked expansively by means of the steam-slide alone, is far short of the limit to which the principle of expansion may be advantageously carried out; consequently, an additional slide is employed, which is driven by the apparatus known as the *cam-motion*—by the operation of which the expansion slide receives a *sudden motion*, or impulse, whereby the steam-way is opened, and again another sudden impulse in the opposite direction, whereby the steam-way is closed; so that, in *each* revolution of the engine, the steam-way, having to be opened twice, and closed twice, *four* such impulses, or sudden motions, in alternately opposite directions, require to be communicated by the *cam-motion* to the expansion slide. It follows, therefore, that in marine engines, making, for example, 20 revolutions per minute, the expansion slide, and all the apparatus connected therewith, weighing probably several hundredweights, have to be started into motion, and as suddenly arrested 80 times per minute; and in the case of direct-action engines making *seventy-five revolutions per minute*, as is frequently required of engines even of large size driving the screw propeller, the number of such distinct movements to be communicated by the cam-motion to the expansion slide, *amounts to* 300 *per minute*; and, further, supposing the steam to be taken on at the turn of the stroke, and to be cut off at one-eighth of the stroke, the expansion slide will require to be started into motion, arrested, and again started upon its back motion, all in the period of about *one-tenth of a second*—a requirement obviously unattainable. Such being the attempted action of the cam-motion expansion gear, it fails of attaining the required precision; the joints soon become loose, and the noise of its operation insufferable; consequently, its constant application is soon dispensed with, and the *economy* which ought to be derived from the principle of working expansively fails of being realised.

To obviate these defects, Mr. Atherton has placed at the disposal of the Lords Commissioners of the Admiralty, and with their concurrence since patented, a new arrangement, which he denominates the *eccentric expansive gear*, of which the following is a description:—

In the accompanying diagram the engine is supposed to be taking on



the steam at the extremity of the stroke; C is the axis of the crank-shaft, on which the expansive eccentric wheel is supposed to be placed; C *g* is the medium direction of the eccentric rod, on which the distance C *a* is taken, *equal* to the steam aperture, E, through the slide; also C *b* is taken equal to C *a*, and from the points, *a*, C, *b*, the lines, *a x*, C *y*, *b z*, are drawn perpendicularly to C *g*. It will be found that if the slide be driven by an eccentric wheel, having its centre at *a*, and the connection with the slide be completed, as shown by the drawing, C *a* will be the radius of the circle described by the centre of the eccentric wheel, the throw will be twice C *a*, and the aperture, E, of the slide will *not* pass beyond the corresponding port, E'; consequently, steam will be admitted throughout the whole revolution. If, however, on the line, *a x*, we take any point, *p*, and bring the centre of the eccentric wheel up to that point, then C *p* will be the radius of the circle that will be described by the centre of the eccentric wheel, which circle will pass beyond the limits of the lines, *a x* and *b z*; and it is evident that, whilst the centre, *p*, of the eccentric wheel is in the act of passing between the lines, *a x* and *b z*, the aperture, E, of the slide will be passing the port, E', and steam will be *admitted*; but when the centre of the eccentric wheel is beyond the limits of *a x* and *b z*, the faces, F, of the slide will be opposite the port, E', and the steam will be *cut off*. It will be observed that the angles, *p* C *s*, *s'* C *p'*, represent the portions of the revolution during which the steam will pass the expansion slide; and the angles, *s* C *s'*, and *p'* C *p*, represent the portions of the revolution, during which the faces, F, of the slide will be opposite the ports, E', and, consequently, for these periods the steam will be cut off; and it is apparent that the farther the point, *p*, is distant from the point, *a*, the smaller will be the angles, *p* C *s* and *s'* C *p'*, in comparison with the angle, *s* C *s'* and *p'* C *p*—that is, the smaller will be the period during which the steam is admitted, in comparison with the period during which the steam is cut off. If, therefore, we so construct an eccentric wheel, that it be properly seated upon the shaft, and be so arranged that *its centre may be made to traverse at pleasure on the line, a p*, or *a x*, we shall, by thus altering the position of the eccentric wheel, produce the effect of varying the degree of expansion at pleasure as may be required. The expansion slide may be either flat, with one, two, or more apertures, E, or it may be cylindrical; but, in constructing it, care must be taken that the width of the respective faces, F, between the apertures of the slide, may give a sufficient range for the *extreme travel* of the slide, when working the steam expansively, in the *greatest* required degree.

By these arrangements, it will be seen that the expansive slide, being driven by an eccentric motion, is not subject to any sudden impulse, but is kept in continuous motion, like the steam slide; it will, consequently, operate as noiselessly as the steam slide, be as little liable to derangement, and work with the same invariable precision, whatever may be the number of revolutions at which the engine is driven.

ON RESIN AND WATER GAS.

In a leading article in the *Mining Journal* of the 24th August last, we made some observations on Dr. Fyfe's report, on the character of Mr. S. White's patent hydro-carbon gas, and which report gave so contradictory an account of its properties and value to that which Mr. White claimed for it. Mr. J. W. Hodgetts, of Manchester, has now replied to Dr. Fyfe, and we must admit that his report appears founded on most careful analysis, and is marked throughout by candour and good feeling. He says the principal sources of error in Dr. Fyfe's very elaborate and very interesting report are—"first, he has tried his experiments with an apparatus erected under an old patent of Mr. White, since abandoned, and replaced by an improved one under his new patent of 1849. Secondly, he has adopted a process essentially differing from that of Mr. White. His retort was *stuffed with charcoal and scrap iron*, thus producing hydrogen, by allowing the water to come in contact with the hot iron, whereas Mr. White decomposes water with heated charcoal alone, and *subsequently* passes the resulting gases through heated iron borings. Thirdly, he begs the whole question at issue, by assuming throughout his argument that the gases produced by water merely *mix* with those arising from the resin, instead of *chemically combining* with part of them in their nascent state, as I hope presently to prove that they do. Fully agreeing with the doctor, as I do, in 'the extreme absurdity of putting any confidence in specific gravity alone as a test of the value of a gas for the purpose of illumination,' curiously corroborated by Prof. Graham himself; who states, in his evidence on Croll's bill, that, 'unless an experiment on specific gravity is combined with an analysis, it may lead to fallacious results,' I will not imitate him in going at considerable length into this very question, but will simply state that I believe the average specific gravity of Mr. White's gas, after passing the lime purifiers, and being thereby deprived of most of its carbonic acid, slightly exceeds 700; to bring it to 924 would require an enormous quantity of carbonic acid." Mr. Hodgetts then proceeds to show, from his own observations, corroborated by the regular reports received from the towns and manufactories employing it, that each 1 cwt. of resin produces from 1500 feet to 1800 feet of gas, 4 gallons of resin oil, and two-thirds of a gallon of naphtha; or, using all the oil over again, which makes the product clearer, 2500 to 2800 feet of gas with two-thirds of a gallon of naphtha, the gas slightly exceeding our Manchester and Salford Cannel gas in illuminating power, as tried against the same candle by the photometer. Mr. White's process is simple enough. His vertical 6-feet retort, having a small quantity of iron borings at the bottom, is filled up with wood charcoal, which is, of course, brought to a high heat. A small stream of water falling upon the charcoal is, either upon its direct contact, or subsequently as vapour, passing through 6 ft. of carbon, converted into carbonic oxide, carbonic acid, hydrogen, and a little light carburetted hydrogen. Most of the carbonic acid subsequently yields an equivalent of its oxygen to the iron, and passes off as carbonic oxide.

These mixed gases are now conducted from the bottom of the vertical retort by a pipe into the horizontal retort, where they instantly come in contact with those gases in the nascent state, which arise from the decomposition of a small stream of resin constantly falling on the red-hot retort—viz.: olifiant gas, light carburetted hydrogen, naphtha, and a little light oil, besides a further small portion of each of the other gases. But now comes the main question on which the merit of Mr. White's invention chiefly hinges—viz.: Do these gases form a simple mixture, or does the large quantity of carbonic oxide, proceeding from the water retort, so combine with either carbon or naphtha, as to obtain from them that illuminating power in which it is previously so confessedly deficient, as almost to justify Dr. Fyfe in classing it as *nil*, and "worse than nil?" Mr. Hodgett's reasons are these:—1. The known products of water decomposed by hot charcoal, if simply *mixed* with the equally well-known products of resin decomposed by red-hot iron, in equal proportions, could not possibly produce a gas of much more than half the illuminating power of good Cannel gas, whereas they *do* produce one of superior power.—2. It has been found by repeated experiments, that if Mr. White's resin retort is worked without allowing the access of the water gas, it will be completely choked up with a deposit of carbon in four hours; whereas, when worked in the usual way, it is by no means choked in 12 hours, though it ought then to be cleaned. If no combination has taken place, where has all this carbon vanished to?—3. The combination of carbonic oxide with naphtha is the very ground on which Mr. George Lowe took out his patent for naphthalising coal gas; indeed, he has often said that the more carbonic oxide the gas contained, the more highly illuminating power the naphthalised gass possesses; for, according to his own original and forcible words, "though carbonic oxide possesses no illuminating power in itself, it is the best possible beast of burden for carrying it."

Mr. Hodgetts then proceeds to say that, at all events, Mr. White *does* produce 2500 ft. of good gas, and two-thirds of a gallon of naphtha from each hundredweight of resin, and does, by means of his water gas, greatly lessen the deposit of carbon in the resin retort; and as these assertions may, by experiment, be easily proved or disproved, all doubters are invited to "go and see." The spirited corporation of Manchester are at present allowing the erection of White's apparatus on their works, to try the economy of converting their immense production of tar into gas by its means; and the result of this trial will pretty much decide the merits of it.

LONDON AND NORTH-WESTERN RAILWAY.—This company employs the greatest number of persons, in its long and branching extent of 477 miles 35¼ chains, with 153 stations. The total number employed is 6743, and they are thus classified:—

Secretaries or managers	8	Assistant drivers, or firemen	318
Engineers	5	Guards or breaksmen	207
Superintendents	40	Artificers	1891
Storekeepers	8	Switchmen	363
Accountants or cashiers	4	Gatekeepers	76
Inspectors or timekeepers	83	Policemen, or watchmen	241
Draughtsmen	11	Porters, or messengers	1486
Clerks	775	Plate-layers	14
Foremen	130	Labourers	30
Engine drivers	334		

REED'S PATENT IRON BLOCK SLEEPER AND CHAIR.

This sleeper is 24 in. square, with sides 3½ in. high, forming it into a box, with the chair cast on the top, and bearance therewith, for the rail to rest upon, 2 ft. in length. These sleepers are laid 4 ft. apart, centre and centre, and have a vacancy of 2 ft. only between the bearances; whilst the common (indeed universal) mode of laying down the stone blocks and transverse wooden sleeper is 3 feet distance from centre to centre, which leaves an interval of 2 ft. 8 in. between the bearances, or one-third more of unsupported rail.

The comparative cost of Reed's and other plans is as follows—viz.: Reed's iron block and chair, 1 cwt. 1 qr. 14 lbs. (but they may be cast of any weight), at 4s. to 5s. 6d.; stone blocks, 2 feet square, and 1 foot thick, in the Newcastle-upon-Tyne district, where good stone is abundant and cheap, will be probably about 4½d. per cubic foot; but in most other places (in the south of England for instance) they will not be obtained under from 10d. to 1s. 3d. per cubic foot—say, as an average, 1s.—which brings the cost of each block to 4s. We, however, assume it as above to be 1s. 6d. per block; to this is to be added 1s. for the chair, 1d. for the holing, 2d. for trenails, and 3d. for brads—together, 3s. per block. The transverse wooden sleepers, each representing two blocks, cost 4s., which, in this calculation, is to be taken as 2s., the chair 1s., trenails and brads 5d., added, bring the cost to 3s. 5d. each. Now, three of Reed's blocks are calculated to carry 12 ft. of single rail, at a cost of 16s. 6d.; whilst the same extent of rail requires four sleepers in the other cases, which will respectively, therefore, be 12s. and 13s. 8d. The wooden keys, or wedges, are not taken into account, but the iron block made will be, of course, one-fourth less than the others. The iron sleepers, when broken up, will be worth one-half their original cost, but are calculated to last for many years.

The foregoing statements refer entirely to the comparative first cost of the patented plan, and the other modes of laying down railways, which furnish 16s. 6d. as a contrast with 12s. and 13s. 8d., for the means of carrying the rails. If the question rested here, Mr. Reed would not have much to boast of; but when the subject is prospectively considered, it cannot fail to be obvious that a most important advantage will be connected with the adoption of the patent iron bearers.

The average durability of the stone blocks have had no time assigned to them as yet. It is true they are little subject to perish from natural causes, but they are liable to failure, to a considerable extent, by breakage in the preparing, and afterwards from mechanical action. Wooden sleepers will not, under any at present known prepared measures, last beyond eight or ten years; and even in such period frequent failures from partial decay will occur, causing a watchful observance to be unceasingly called for, occasioning much trouble and inconvenience; but a general renewal of these supports on railways in active operation becomes, indeed, a serious affair, both as to cost, inconvenience, and liability to accidents. The cast metal blocks are subject to no decay, either from mechanical or chemical influence; for it is a fact well known to persons much experienced in the working of railways, that the heat generated in the rails and chairs (which cannot fail to be imparted to the iron blocks as well), by the loads passing over them, is a complete bar to oxidation; and whenever such under supports are broken up, as before observed, they will bring, as scrap metal, one-half of the first cost.

Besides what has been said in favour of this project, it may be further observed, that from the great durability of the iron blocks a most important saving of labour will occur in the reparation of railway lines, and a security against accidents, which have frequently arisen from the forcible separation of chairs from their sleepers, will be afforded, which in the adoption of these iron block chairs cannot, by possibility, happen.

Although this invention of an iron chair and base cast or formed in one piece of iron or metal, was patented five years ago, it is but recently that the attention of railway engineers has been directed to the subject. Such, however, is at length the case, and the opinions generally entertained are such as to induce the conclusion that wood and stone will cease to be used for carrying the rail. Indeed, the iron substitute brought forward by Mr. Reed affords such a permanent and valuable essential, as no perishable material can for a moment be supposed to compare with, when all the points bearing on the question are duly considered.

At an early period of railway practice, something of this nature was entertained; but the price of crude iron at the mines was too high to admit of its adoption. The improvements in ironmaking have, however, enabled iron to be produced at so moderate a rate, as to render its use in this case now practicable.

It is a very common occurrence that, upon a valuable discovery being brought forward, though secured to the inventor by letters patent, spurious schemes are promulgated, with a view to evade the patent, and secure the credit and benefit to other parties; and such, we are informed, has occurred in this instance, in direct violation of Mr. Reed's patent; but we understand that gentleman only waits for a proper opportunity to vindicate his prior right, and seek protection from the laws of his country.

CRADDOCK'S IMPROVEMENTS IN THE STEAM-ENGINE AND CONDENSER.

We are glad to observe, that our esteemed correspondent, Mr. Thomas Craddock, late of Birmingham, has set up an engineering establishment in the vicinity of Thames Bank, Pimlico, where, during the week, we have had an opportunity of inspecting a 10-horse power engine, with all Mr. Craddock's improvements; and it is only just to bear testimony to the fact, that for uniformity and smoothness of action, absence of vibration, and delicate subjection to control, we never witnessed any thing superior. The engine is fixed horizontally on the double cylinder principle; and the arrangements of the slide valves for regulating the admission and conduction of steam to the small cylinder, from thence by expansion to the large one, and thence to the condenser, are on Mr. Craddock's last improved principle, and are highly ingenious, compact, and effective. The tubular condenser, patented by Mr. Craddock, we particularly inspected; and found the water which flowed from it nearly as cold as if it had not just before been in contact with tubes charged with steam. The novelty to us, however, was the boiler, which is fixed beneath the engine—the roof, if we may so term it, forming a paved flooring to the engine-room. It consists of a number of vertical tubes, communicating with each other, and containing the water, placed in the form of a hollow square—at the bottom of which are the fire-bars, forming the furnace, and beneath all is the ash-pit. A partition of fire-brick surrounds these tubes, leaving a space all round, forming a flue; and there is another space between this partition and the outer wall; the heated air and gases thus pass up inside of the spaces between the tubes, and descend on the outside of them, passing off by the outer flue. The fire is fed through a hole in the engine-room floor, covered with an iron plate; and the draught is regulated by a damper in front of the ash-pit. The fire-bars are contained in a frame, which, by the action of a lever, can be lowered, and the whole of the burning fuel shot into the ash-pit, when the engine has ceased working for the day, or in the event of any accident to the engine. There is also a self-acting damper on the pneumatic principle, which opens or shuts as the pressure of the steam increases or otherwise. According to data furnished us, the saving of fuel must be immense; and for compactness, cleanliness, facility of control over both engine and boiler, and general advantageous working, there appears nothing to be desired. We have inspected testimonials from large manufacturers, who have had Mr. Craddock's expansive and condensing steam-engine erected, and in constant work for periods varying from one to four years, and in every case agreeable surprise has been the result, and the greatest anticipations exceeded. The following observations, in a communication from Messrs. E. and T. Humphries, agricultural machine manufacturers, Pershore, Worcestershire, breathe the sentiments of all:—"Respecting the boiler, we can say that during four years we have never had a scarcity of steam, let the work be ever so hard; we think the boiler sufficient for double the power. About twelve months since it was taken down and examined, and, contrary to our expectations, we found it as good as new. We have no hesitation in saying, it is the *most economical, durable, safe, and efficient boiler made*. The condenser we consider a valuable invention, as it invariably keeps a regular supply of pure water in the boiler, and a good and steady vacuum of 27½ inches of mercury. The regulating damper is a useful apparatus, as it does not allow the steam ever to vary more than 5 lbs. on the inch. The quantity of fuel consumed, as compared with another high-pressure engine we have at work, is as one to three in favour of yours. Should we ever want another stationary engine, be the power what it may, we shall never use any other description than yours." When the ma-

chinery is all completed, and the engine has heavy work to perform, we shall have an opportunity of saying something more on the subject; and, in the mean time, at a period when safety and economy are the great essentials in locomotion, both by land and water, we would seriously direct the attention of steam-boat companies, railway engineers, and others interested, to these improvements, which bid fair to open a new era in the cost of steam propulsion.

Original Correspondence.

ECONOMY OF FUEL IN THE BLAST-FURNACE.

SIR,—Mr. B. Thompson has rendered much service to the pig maker by his recent discovery—viz.: the application of waste heat from the tunnel head of the blast-furnace for generating steam, heating air ovens, &c.; but he may venture to go a step further, and with corresponding advantage, especially as the *principle* is so capable of expansion. With every "charge" to the blast-furnace a considerable quantity of *cold* material is deposited, which the coke (or raw coal, as the case may be) is designed to smelt; but, before this can be accomplished, it has a great resistance to overcome; *and, in proportion to the period required for smelting such material*, more or less fuel and blast, will be expended; it is, therefore, obvious, that were the materials in question to be charged *hot*, instead of *cold*, care being taken that they are not hented to a *fusible* point before depositing in the furnace, their *reduction* must be the more speedily effected. I would, therefore, suggest the application of Mr. Thompson's principle to heating the materials before "charged" into the furnace, and which, I think, may be done by means of a hopper placed in juxta-position with the tunnel head. Perhaps Mr. Thompson would adopt some other plan to effect the purpose; this, however, is a minor consideration when compared to the *importance* of the object; of its *practicability* there cannot be a doubt, while its great advantage to the pig maker is unquestionable.—E. TALBOTT: *Sept.* 19.

THE STEAM-JET FOR VENTILATION A PATENTED INVENTION

SIR,—A paragraph has been making the round of the daily papers, to the effect that the Courts of Exchequer and Common Pleas at Westminster are about being ventilated by the steam-jet, under the direction of Mr. G. Gurney, superintended by Mr. William Clark, late of King's College. Now, for the information of the public, I beg to make known, through your valuable columns, that the late Mr. James Grant patented on the 7th May, 1844, improvements in the means of ventilating buildings and other places, where a change of air is required, claiming this very principle. He therein expressly states, that the first part of his invention consists "in injecting or emitting a volume of steam from a boiler into a chamber, pipe, or shaft, in communication with the room or place to be ventilated, whereby the vitiated air of the said room or place is drawn into the said chamber or shaft, and conveyed away into the external atmosphere." He then gives drawings and descriptions of houses and mines, with his apparatus applied, adding, "*fig.* 18 shows a steam-pipe surrounded by a wooden case or box, whereby I am enabled to *warm* the fresh air whilst conveying it to the room, and also to abstract the foul air." In the above-named paragraph, as given in the *Times* of the 10th September,* it is stated that, "under the direction of Mr. G. Gurney, fresh air is to be brought in at a high level above the courts, and the vitiated air withdrawn by a separate jet from each court. In winter they are to be *warmed*, and in summer cooled, by a peculiar application of this principle." This is such a manifest infringement of Mr. Grant's patent, that I think it has only to be pointed out to be immediately acknowledged and remedied. It appears to me to be but another instance of the unfortunate position of inventors, and that even the promised protection of a patent can scarcely insure them either praise or profit for their ingenuity. The application of Grant's steam-jet for the ventilating of mines, or extinguishing fires, as recently practised under like infringements of this patent, is invaluable. and I trust, though the patantee is no more, that his family will reap the benefit of his labours and experience. H. DIRCKS.

Moorgate-street, Sept. 16.

THE IRON TRADE.

SIR,—The following paragraph is now going the round of the press, copied from a recent number of the *Birmingham Gazette* :—"It is a question that is very generally forcing itself upon the attention of thinking men interested in this trade, why it should be the case, that with every prospect of an abundant harvest, with an export trade of very expansive dimensions, with money abounding, and discounts unusually low, with commercial facilities and circumstances the most advantageous, and with an appearance at least of prosperity of almost every other trade, that of *iron* alone should remain in a condition so utterly lifeless and unremunerative." A perusal of the pamphlet herewith sent will, I doubt not, go far towards putting you in possession of its true cause. As it cannot now be doubted that the absurd strife amongst the iron manufacturers of this kingdom, as to who can produce the greatest number of tons per furnace, is the principal cause, and the absurdity becomes greater, when known that this system cannot be carried on without making the produce of inferior quality, and, generally speaking, with a greater quantity of fuel per ton of iron so produced.—H. HARTOP: *Barnborough-hall, Rotherham, Sept.* 16.

[Some remarks on, and extracts from, the pamphlet will be found in another column.]

MINE INSPECTION—VENTILATION.

SIR,—A considerable portion of Mr. Mushet's letter, which appears in your Journal of the 7th inst., consists of questions, unaccompanied by such explanations as to lead me to perceive their drift, prior to the time of my replying at large to his letter; and their inappropriateness will, I think, appear, from the exposition of the fallacies embraced *in their insinuations*, which, with your leave, I will now give. He further complains of my not having given the *grand datum* on which he founded his calculations, appearing in your Journal of the 10th August; and having, since the reply of which he complains, been led to suppose this datum to be the fact of the light air from the upcast pit having to make its way against a column of denser gravitating fluid 30 miles (!) high, I will follow him into the details of his letter of the 7th, and, in doing so, dwell on the datum to which he clings. Mr. Mushet asks if the best form for a swift-sailing vessel is a cone, or pyramid, with the large end, or base, foremost; or if its speed will be increased by extending the area of flat surface, or by expending part of the propelling power, in immersing it further under water?

Here I have to point out that he improperly insinuates that there is of necessity a difference of *shape*, or *form*, between the body of air issuing from a large and that from a small upcast, which is not true; since the form, or shape, may be precisely similar in the two cases, the only necessary difference being in the extent of exposed surface (which he here compares to the bows of a vessel), and, even independent of this, he is far from the true state of the case. He merely arrives on sound data at the conclusion, that a small area of surface meets at *equal velocities* with less resistance than a large one does; but in the case of upcast pits discharging equal quantities of air in a given time, the *velocity of discharge is reduced* in exactly the same proportion that the *area is increased*; and it is a well-known fact that a vessel of similar form, and of double area on the bows, will only meet with one-half the resistance the smaller one must encounter, *provided the larger one only moves with half the velocity of the smaller one*, because the resistance merely increases *in proportion to the area*, whilst it increases as rapidly as the *square of the velocity*. Thus, if three vessels exposing 50, 100, and 200 of surface, sail with velocities inversely proportional to these areas, the resistance they meet with are exactly proportional to their velocities, and inversely, therefore, to their respective areas, so that *on these conditions the greater the area the less the resistance*. This is shown in the following table:—

Areas of bows of vessels, or upcast pits.	Velocities, inversely proportional to areas, so as, in pits, to discharge equal quantities of air.	Resistance of water to vessels.
A.	V.	A. × V².
50	200	2,000,000
100	100	1,000,000
200	50	500,000

From which it is evident that, by reducing the velocity, even when the area is increased in the same ratio, there is still a diminution of resistance. Mr. Mushet's error lays in neglecting to consider that, to discharge equal quantities of air in a given time, the speed is reduced as the area is increased—the reduction of velocity diminishing the resistance much more rapidly *(as it is square)* than the necessary increase of area increases it *(simply)*, and his conclusions are, in consequence, unsound.

His remarks about using the wrong end of a wedge are equally, *dare I say, unhappy*. The form, as I have stated, of upcasts is the same, whether large or small, or may be so; and I do not see why he should compare a small upcast to the *shape* of the sharp end of a wedge, and a large one to the *shape* of the blunt end, and I shall, therefore, confine my remarks to the difference of area only. In front of engines, as in vessels, if the velocity of the engine could be reduced in the same ratio that the area is increased (as in the velocity of an equal quantity of air for ventilation), then the larger the area, and less the velocity, *in consequence*, the better—that is, in order to encounter less resistance.

Mr. Mushet states that, if my views were correct, the funnels of locomotives should be 16 or 20 times enlarged in area to pass the air heated at the fire-bars. When I have noticed some of our *puffing billys*, on dark nights, the bottoms of their funnels have been of a red-heat—perhaps, 500° to 600°; but supposing the air to be even 1000° higher than at the fire-bars, giving it about a double volume, upon my theory the area of the funnel should only be √2 times that at the fire-bars, not including the part of the bars choked by the fuel, in order to economise the area equally in all parts—that is, less than 1½ times the open space at the fire-bars, after deducting the parts choked by the fuel.

I certainly never stated, in Mr. Mushet's abstract way of putting it, that heated air would pass up large and small funnels with equal velocities; but I did state, and repeat, that, "if we, like Mr. Mushet, omit the effects of friction," * * * the quantity of air of uniform density discharged through any *orifice* by a constant pressure (as in a pit), is simply proportional to the area of that orifice; nay, I go further, and say, that the same law holds good in a tube, provided all its parts are proportionably and simultaneously altered in dimensions; but the mere enlargement, or diminution, in the area of an upcast pit, leaving the downcast and workings as before, or the alteration in area of a locomotive funnel, leaving the fire-bars and tubes as before, will effect a limited increase or decrease in the discharge, depending, as I formerly stated, on the comparative extents and areas of the altered and unaltered parts of the air-course.

Now for the supposed *grand datum*. Mr. Mushet states that, if two rods are taken, representing the two superincumbent columns of atmosphere, one twice the area of the other—the larger to represent the upcast superincumbent column, and the smaller that over the downcast—and put the former together with a rod, representing in its proportions the upcast column in the pit, in one side of a balance, and the latter, together with a rod representing the downcast, into the opposite scale, we will find how the ventilation may not only be impeded, but reversed, by having an upcast of greater area than the downcast. Surely, Mr. Mushet's experience never led him to such a conclusion as to ventilation. Yet so far as rods are concerned, he reasons correctly—quite, albeit the supposed case does not in any way bear upon the one it is intended to illustrate; if it did, woe unto many.

Fortunately, however, if we pour water into a tube, or pipe, bent double like an U, it will stand at the very same height in both limbs, let the area of the limbs be as different as we please, and thus a portion of fluid, however small, will, and does, resist and balance the pressure of another portion, however large; and, *as the representative of our atmospheric ocean*, if the bent tube be sunk to the depth of 30 (5½ might have sufficed) miles in a sea of water, the equilibrium will remain undisturbed; but, if by expansion or otherwise, the contents of one of the limbs could then be rendered of less specific gravity than that of the other, motion would ensue, but not as in the case of *an equal balance*. No; the fluid in the larger limb will move *slower* than that in the smaller one, the rates being in the two limbs inversely proportional to their areas; hence the beam for Mr. Mushet's rods should have the fulcrum so situated, that the motions of the scales should be inversely proportioned to the weights of the rods, and then he will find them balanced, in spite of their unequal weights; and if by any means he lightens the rods representing the large upcast and its superincumbent column even to a trifling extent, the motions of the two scales will fairly give him the ratio of the motions of the columns in his pits—this is the hydrostatic paradox.

Mr. Mushet states that he gave the case cited about Haswell as it stands in the report. Perhaps he did, but I had not seen the report, and did not presume that he necessarily gave *all* the particulars; and, at any rate, Mr. Mushet's *remarks* were not in the report; and what I stated was—"Mr. Mushet's *remarks* relative to the case of the Haswell Colliery, I consider are equally unhappy with those already alluded to;" and it was *not the* case which was *in itself* unhappy; the conclusion come to from it, to the effect that a small upcast pit will discharge, within certain limits, more air than a larger one, independent of the materials composing its surface, I submit was not only *unhappy*, but literally *miserable!* J. J. A.

Loughor, Glamorgan, Sept. 16.

PRESERVATION OF THE THAMES MANURE.—Notwithstanding the failure of more than one company established for the purpose of collecting the sewage of this great metropolis, and applying the same to industrial and economic purposes, and the opposition on the part of the Commissioners of Sewers, a preliminary prospectus has just been issued of another company, about to be formed under the title of "Thames Sewage Salvage Company." It has already been provisionally registered, and although we are not informed whether any arrangements have or have not been made with the Commissioners, or what are the prospects of obtaining an Act of Parliament, to enable them to perform a portion of the functions of that body, there is, we think, no doubt as to the desirability, as well as feasibility, of the principles proposed. It is founded in the first instance on the sanitary principle of preserving the Thames from the noxious impurities discharged into it; secondly, for preserving the manure; and, thirdly, for the production of several varieties of fertilising matter, and their adaptation to the various soils of the kingdom. The plan is to conduct the entire mass of sewage matter, by means of an iron tubular channel, to such a distance from London and its suburbs, that the flow of the tide cannot return it to the bed of the river. Its current will be concentrated at a certain point already determined on, situate below Gravesend, where it will be received into covered repositories, to undergo both a chemical and mechanical process, by which it will be condensed, and rendered an appropriate and truly valuable fertilising agent. It is also a portion of the plans of this company, by means of a peculiarly constructed tidal-wheel, which they have secured, and a line of pipes concurrent with the sewage tubes, to supply the cities of London and Westminster with a constant stream of pure sea water, and thus bring within the reach of the hospitals and public institutions an inestimable sanitary agent. As an undertaking of great public utility, it is confidently anticipated by the promoters that the Government will favour it with its patronage and support, and thus enable them to obtain those powers which are necessary to enable them to carry out the scheme effectually. It is proposed to raise a capital of 300,000*l.*, with power to increase it to 500,000*l*; and, from the most careful calculations made, allowing every latitude, it is confidently estimated that the sale of the manufactured manure, at a maximum price of 10s. per ton, will leave a large annual profit to the shareholders.

BRIDGE BETWEEN ENGLAND AND FRANCE.—The Academy of Sciences has at present under consideration a plan of a most extraordinary character, being neither more nor less than a suspension-bridge between France and England. M. Ferdinand Lemaitre proposes to establish an aerostatic bridge between Calais and Dover. For this purpose he would construct strong abutments, to which the platform would be attached. At a distance of 100 yards from the coast, and at distances of every 100 yards across the Channel, he would sink four barges, heavily laden, to which would be fixed a double iron chain, of peculiar construction. A formidable apparatus of baloons of an elliptical form, and firmly secured, would support in the air the extremity of these chains, which would be strongly fastened to the abutments on the shore by other chains. Each section of 100 yards would cost about 300,000 f., which would make 84,000,000 for the whole distance across. These chains, supported in the air at stated distances, would become the point of support to this fairy bridge, on which the inventor proposes to establish an atmospheric railway. This project has been developed at great length by the inventor.

QUARRYING GRANITE.—The Kirkmabreck Quarry, near Blackcraig, in Galloway, supplies Liverpool with the granite required for the docks, and here the method of reducing this refractory material may be seen in perfection. The granite is here stratified nearly perpendicular, and huge masses are separated by wedges and forced out, when they fall to the bottom of the quarry. They are then reduced to the desired shape by "plug and feather"—that is, holes are drilled by the jumper along the line of intended fracture, and two wedges, base downwards, are inserted in each; a third is inserted apex downwards between the two, when they are simultaneously driven home, and a few blows effect a separation of the stone. So powerful is this mode of action, that masses said to weigh 500 tons, have been removed by it. The blocks, when cut and shaped are transported by a short railway to the shore, and then shipped in vessels belonging to the dock trustees for the Mersey.

* The *Builder* newspaper, of the 14th inst., in copying this article, adds, that Mr. Bachhoffner is at present engaged in giving an interesting lecture on the steam-jet at the Polytechnic Institution.

RAILWAY PASSENGERS' ASSURANCE COMPANY.

Empowered by Special Act of Parliament, 12 and 13 Vic., cap. 40.

OFFICES—3, OLD BROAD-STREET, LONDON.

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SURGEON.—Barnard Wight Holt, Esq., F.R.C.S., 5, Parliament-street, Westminster.
SECRETARY—Alexander Beattie, Esq.

This company has been established for the purpose of affording compensation in cases of personal injury, and the payment of a certain sum in the event of death by railway accident. During the year just closed the following are the particulars of the claims that have been made on this Company by 37 persons who have sustained injury in travelling by railway.

No. 1.—A holder of a periodical ticket, No. 5091, met with an accident by falling off the platform at Preston, on the night of the 1st Nov.—Adjusted by a payment of £7 6s.

No. 2.—A mail guard, insured by a periodical ticket, No. 5584, whilst travelling from Coatbridge to Perth, on the 29th November, having occasion to get out at the Stirling station, he slipped between the platform and Post-office van. The injury he sustained prevented him from attending to his duties till the 3d January.—Awarded £20.

No. 3.—The holder of a periodical ticket, No. 5396, whilst travelling from Macclesfield to Manchester, on the 31st December, was thrown against a gentleman sitting opposite to him, and received a blow on his face, which rendered him incapable of attending to his business for a few days. His claim was settled by the Company paying, at his request, five guineas to the Manchester Infirmary—the claimant being himself a medical man.

No. 4.—A commercial traveller, and holder of a periodical ticket, No. 16,880, met with an accident at the Thirsk Station of the York, Newcastle, and Berwick Railway, whilst about to proceed to Newcastle on the 24th January. The injury consisted of a severe bruise of the thumb, caused by a porter shutting the door of the carriage on his left hand before he could take his seat; the accident obliged him, after remaining a week at Newcastle, to return home from his journey, which he was unable to resume until 11th Feb.—Awarded £31 10s.

No. 5.—The holder of a first-class ticket, issued at Leicester, 28th January, was a passenger in the train that ran off the rails between Blisworth and Wolverton; he was thrown with great violence against another passenger, and the shock unfitted him from attending to business for some days.—Awarded £14 14s.

No. 6.—The party in this instance is a clerk in the Travelling Post-office, and the holder of a periodical ticket, No. 5474, and was severely injured, especially in the face and eyes, by the collision of the mail with the goods' train, that occurred on the 13th February, near the Abingdon Station, on the Caledonian Railway.—Awarded £210. The injury to the eyes being feared to be of a permanent character.

No. 7.—The holder of a single journey ticket was also a passenger in the same train. The claimant was about to proceed to New York by the *Canada*, but the injury he received prevented him from doing so.—Awarded £30.

No. 8.—The holder of a periodical ticket, No. 7343, was injured by the collision between the passengers' and goods' train, in the long tunnel in the Leeds and Bradford Railway, on the 18th February.—Awarded £40.

No. 9.—A commercial traveller, holder of periodical ticket, No. 16,851, was travelling by the mail train that left Newcastle at 4 P.M., on the 15th March, for Manchester, and sustained a severe shock by the engine running off the line near the Victoria Bridge.—Awarded £10.

No. 10.—A Government officer and his wife were passengers by the mail train that left Durham at half-past four o'clock P.M., on the 6th May, which ran into an engine in the siding, from the points not having been properly set, near the Belmont Station of the York, Newcastle, and Berwick Railway. They were both much hurt by the collision.—Awarded £35.

No. 11.—An engine driver, whilst driving the engine of a goods' train on the 25th of May, between Blisworth and Wolverton, was thrown beneath the engine, from the train coming in collision with a bale of cloth that had just fallen on the line from a passing train; he was much scalded and otherwise seriously injured.—Awarded £42.

Claims 12 to 17.

Were made by parties who were travelling by the excursion train on the 3d July, from Leek and Macclesfield to Liverpool, the weight of which overpowered the breaks on entering the station.

No. 12.—The claimant, with his wife and mother-in-law, from Leek, second-class passengers, were all bruised.—Awarded £6.

No. 13.—A young woman from Leek, a third-class passenger, had her face hurt.—Awarded £2.

No. 14.—A man and his wife, employed in the manufacture of silk, third-class passengers, were both slightly injured by the shock.—Awarded £2.

No. 15.—A passenger from Macclesfield had insured himself and family, six in number, three of whom received some injuries from the concussion.—Awarded £5 5s.

No. 16.—A gentleman, holding a periodical ticket, No. 8751, left Macclesfield in the above train, and was so shaken as to be incapacitated from attending to his business for a few days.—Awarded £6.

No. 17.—A second-class passenger from Macclesfield, was severely injured about the spine and neck, which still confines her to her room.

Nos. 18 and 19.—These claims were made by two gentlemen, holders of periodical tickets, employed in the Railway Post-office, and travelling by the mail train that left the Euston Station on the evening of the 6th July, and ran into some waggons of a goods' train, proceeding on the same line, near Harrow. One of them sprained the muscle of his back, and the other was thrown against the corner of the Post-office, breaking one of his ribs, and being otherwise injured.

Claims Nos. 17, 18, and 19, are in course of adjustment.

No. 20.—The claimant and his wife were third-class passengers by the same train; he escaped with a few bruises, but his wife was much injured.—Awarded £15.

From the accident that occurred to the excursion train at Cowlairs, on the Edinburgh and Glasgow Railway, on the 1st August, when Six persons were deprived of their lives, and many others injured, the following claims have arisen:—

No. 21.—A farmer from Dubheads, near Crief, was hurt about the head and face.—Awarded £6.

No. 22.—A carpenter from Auchterarder, received a blow on the head.—Awarded £4.

No. 23.—A farmer from Strathallen, was also hurt about the head.—Awarded £5.

No. 24.—A draper from Auchterarder, was injured about the thigh and side.—The sum awarded £3 3s.

No. 25.—A man from Auchterarder, was severely bruised about the ribs.

No. 26.—A brother to the above was slightly injured.—Awarded £2 2s.

No. 27.—A female was bruised, and otherwise internally hurt.—Awarded £6.

No. 28.—Another female was injured about the side and chest.—Awarded £2 2s.

No. 29.—A man from Auchterarder, was slightly injured.

No. 30—A farmer from Tullebardine, was seriously bruised.

Claims 25, 29, and 30, are in course of adjustment.

In most of the above cases the sum awarded is exclusive of the medical expenses incurred by the sufferers, which have been defrayed by this Company, in addition to that of their own medical officer, who promptly visited the injured parties on hearing of the accident. The utility of such a company is demonstrated by these cases, and the conviction that the premiums which the railway traveller pays are but a small addition to the cost of his journeys, and create a fund for the relief of those who from time to time suffer by railway accidents—which no human foresight can prevent, will, it is hoped, secure the public support to this Company.

TABLE OF PREMIUMS.

Table for a Single Journey, irrespective of Distance.

TO INSURE

£1000, in a first-class carriage, at a premium of			3d.
500, in a second	ditto,	ditto	2d.
200, in a third	ditto,	ditto	1d.

For the convenience of frequent travellers, the Company also issues PERIODICAL TICKETS, to insure £1000 for one month, at a premium of 5s.; for three months, 10s.; for six months, 16s.; for twelve months, 29s.—with the option of travelling in any class carriage, and on any railway in the kingdom.

These tickets may be obtained at the Stations of most of the Railways in England and Scotland; of the Provincial Agents of the Company; and at the Company's Office, No. 3, Old Broad-street, London. ALEXANDER BEATTIE, Manager.

PROTECTION FROM FIRE AND THIEVES.—The

ELECTRIC INDICATOR (BUTTER'S PATENT), suitable for Buildings of every description, gives instant notice of the entrance of a Burglar, or the commencement of a Fire. May be seen in operation at the Sole Licensees, Horne, Thornthwaite, & Wood, opticians, 123, Newgate-street, London.—A descriptive pamphlet, price 2d.

PATENT IMPROVEMENTS IN CHRONOMETERS

WATCHES AND CLOCKS.

E. J. DENT, 82, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area), Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

INDURATED AND IMPERVIOUS STONE, CHALK, &c.

—AGENTS, with capital, are WANTED in all TOWNS to SUPPLY (under British and Foreign Patents) the great demand for HUTCHISONISED MATERIALS—hard as granite, impervious to moisture, vermin, &c.; the cheapest and most durable for all buildings, hydraulic, paving, monumental and decorative work.—The profits are large.

Apply to HUTCHISON & CO., Tunbridge Wells, Kent, and Caen, Normandy, stating name, address, and capital at command.

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INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

MR. JACQUES BRESSON, MERCHANT in FRENCH STOCKS, established since 1825, in PARIS, 31, PLACE DE LA BOURSE (facing the Peristyle of the Palais de la Bourse), undertakes the PURCHASE and SALE of PUBLIC SECURITIES, of FRENCH RAILWAY SHARES, according to the course of Exchange of the day—receives them as deposit, and recovers the coupons of interests and dividends. Investment of large and small sums at more advantageous terms than in England. He undertakes also, in France, the PURCHASE and SALE of CONCESSIONS of MINES, of Working Mines, equally the Search of Mines, of Gas-Works, and others—of Iron-Mills, Melting and Founding Houses, Weaving-Mills, and large industrial establishments.

MR. JAMES CROFTS, of No. 4, KING-STREET, CHEAPSIDE, is encouraged to renew his recommendations to CAPITALISTS to turn their attention to BRITISH MINING PROPERTY, as a safe MEDIUM for INVESTMENT at the present moment in particular—an unprecedented increase having taken place in the productive class of mines, solely owing to the application of capital and improved modes of working.

Mr. CROFTS can procure SHARES in all MINES of repute, and has FOR SALE specially—Wheal Trescoll (20 shares), Llwynmalees (5 shares), West Seton, Wheal Seton, East Sharp Tor; and in all dividend mines; also Combiawn, Wheal Benny, Lamherooe, Wheal Vincent, and Wheal Sarah.

*** Mr. CROFTS is only a purchaser of shares for principals.—Sept. 21, 1850.

MINING AND GENERAL AGENCY OFFICE, *No. 52, THREADNEEDLE-STREET, LONDON.*

Mr. R. TREDINNICK begs to inform his Friends and the Public of his REMOVAL to the above COMMODIOUS ROOMS, in the Hall of Commerce, where he purposes to hold, in addition to his general Agency Business, PERIODICAL SALES, BY AUCTION, of SHARES in MINES, RAILWAYS, BANKS, CANALS, INSURANCE, and OTHER COMPANIES; also Reversions, Annuities, Bonds, &c., together with Estates, Houses, and Property of every description.

SHARES BOUGHT and SOLD ON COMMISSION, and MONETARY MATTERS of every kind NEGOCIATED; Statistical and General Information afforded gratuitously, upon personal application.

Mr. T. offers to the mining world the opportunity of exhibiting in his Public Sale Rooms, Reports, Plans, Sections, and Specimens of Mines and Mineral Districts, whether situate in the United Kingdom, Foreign, or Colonial Possessions, upon forwarding the same, free of expense; as also Plans, Sections, &c., of Estates, Houses, and other Property for Sale.

CAMBORNE CONSOLS MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of the shareholders of this Company will be HELD at the Company's offices, 22, New Bridge-street, Blackfriars, London, on Thursday, the 17th day of October next ensuing, at One of the clock in the afternoon precisely, for the purpose of transacting the ordinary business of an Annual General Meeting of the shareholders, according to the provisions in the Company's Deed of Settlement, and that the said General Meeting will be made Special, for the purpose of confirming the resolutions passed at the Special General Meeting, held on the 23d day of May last; and also for the purpose of considering the expediency of dissolving the said Company, and the best mode of winding up their affairs, with a view of abandoning the present constitution of the Company under the Joint-Stock Companies' Act, and to carry on and work the mines on the Cost-book System, and for adopting such resolutions, and giving such directions, as may be deemed necessary or advisable for effecting the purposes aforesaid, or in relation thereto.—Dated this 21st day of Sept., 1850.

By order of the Board of Directors, H. L. T. VON USTER, Sec.

COURT GRANGE SILVER-LEAD MINES.—TO BE SOLD, ONE EIGHTEENTH PART, or SHARE, of the ABOVE MINES, guaranteed free of all calls (and conducted upon the Cost-book Principle).

The setts extend over about 4000 acres of ground, and are situate in the centre of the silver-lead basin of Cardiganshire, comprising Pen-y-Cefn, East Pen-y-Cefn, and Lletenhein Mines, with a complete field of machinery in excellent condition, and an abundant water-power. They are held on lease under the Right Hon. the Earl of Lisburne—about 19 years of which are unexpired.

The mines are at present in full operation. "The returns per month will not be less than 30 or 40 tons, which will leave a profit of 150*l.* per month, with every prospect of a gradual increase."—(See the "City Article" in this Journal of the 17th inst.)

A complete and attested copy of the conditions, and the rules and regulations of the company may be seen, and further particulars be obtained, on application to Mr. Wm. Trenery, mine and sharebroker, No. 9, St. Michael's-alley, Cornhill; also to Mr. H. Von Uster, 22, New Bridge-street, London.

BICTON CONSOLS, situate in the parish of LINKINGHORNE, COUNTY OF CORNWALL.

Divided into 1024 shares.—Deposit £2 5s. per share.

The LOCALITY of this SETT, together with the relative position which it bears to the Trelawny and other productive Lead Mines of the district, is too well known to require further description than given in the following

REPORT.

Bicton and Scrawsden sett (now called Bicton Consols), is situate in St. Ive, Cornwall, and is one of the most extensive setts in the district; it lies in killas, between the granite ranges of Caradon and Heignston, in the centre of an extensive and tried mining district, having in the north and west the Caradon and Phœnix Mines, and on the east the Holmbush and Callington Mines, and is to the north of Trelawny, Mary Ann, Trehane, &c., run of lead mines. Three large north and south lead lodes have been cut; the eastern of these is 6 feet wide, 4 feet of which is gossan, and the remaining 2 feet a very fine flookan. The next lode is about 50 fathoms further west, very similar in character, and is about 4 feet wide. The third lode is about 50 fms. further west, of a similar character, and about 2 feet wide. These lodes have been traced a mile in the sett. It is impossible to see finer indications at the surface than these lodes present, and the district being a proved one, there is every probability of their producing abundance of lead.

(Signed) SAMUEL RICHARDS, Trehane Mine.
ROBERT DUNSTAN, West Caradon.
SAMUEL SECCOMBE, Phœnix Mines.
JOSEPH KEMP, Trelawny.

The testimony of the above experienced and well-known agents, now conducting the most productive and best dividend-paying mines in the locality, is considered a sufficient guarantee as to the probability of a favourable result.

A large portion of the shares have been disposed of in the neighbourhood of the mine, and application for the remaining shares may be made to Mr. James Lane, No. 80, Old Broad-street, London.

CRAIG-Y-MWYN LEAD MINES, LLANRHIADR, MONTGOMERYSHIRE.—The proprietors of these mines having intersected two veins of ore, of great value, are desirous of WORKING them by means of a PUBLIC COMPANY. The lease is for 21 years, from the Earl Powis, at a royalty of 1-10th, and comprises about ONE THOUSAND ACRES of MINERAL LAND, on which three Lead-bearing veins are now worked. The north vein, containing solid ore, 2 feet wide, resting upon a bed of loose ore, about 12 inches wide, proved for 10 fathoms, intersected by three levels, at the depths of 130, 150, and 160 yards, all cut into the ore, and will shortly be further intersected by a level driven 53 yards lower.

Parallel with this vein, at the distance of 10 yards, a vein is now being worked, 9 feet wide, and beginning to show ore of great promise.

The south vein has been cut into by a level 240 yards—extracting solid blocks of ore, from 3 to 4 cwts., and will shortly be intersected at a further depth of 50 yards.

These works require no machinery whatever for getting.

The ore is of great purity, selling at £12 per ton. The mine will be divided into 1600 shares—900 of which are taken up, leaving 700 for disposal, on which £8 per share is to be paid on receipt of scrip. The lead on bank, about 50 tons, will be available for a first dividend to shareholders joining during this month.

Applications for shares to be made to Bell Williams, Esq., land agent, 16, Castle-street, Liverpool; or to Mr. James Lane, mine agent, 80, Old Broad-street, London, where plans, reports, and sections of the works can be seen; copies of the reports may also be obtained at the office of the *Mining Journal*, 26, Fleet-street, London.—Sept. 3, 1850.

WHEAL PROVIDENCE SILVER-LEAD AND COPPER MINE,—SOUTH SYDENHAM, TAVISTOCK, DEVON.

In 5000 shares.

CONDUCTED ON THE COST-BOOK PRINCIPLE.

OFFICES—3, WALBROOK-BUILDINGS, LONDON, where the original Reports and samples of the Ore, Gossan, and Lodes, may be inspected.

REPORT OF MR. EVAN HOPKINS.

This mineral property is situate in the parish of South Sydenham, on the east bank of the River Tamar, near the Horse-bridge. The geological formation of the district is a metalliferous clay slate, slightly dipping westward, and is intersected by several cross-courses, of favourable appearance and angular position, and about a mile north of the Wheal Maria lode (the Devon Great Consols). Although the lode, as far as it is developed in the adit, predominates in lead, yet all the indications observed in the rock, on the surface, and underground, as well as the general character of the formation of the lode, show that it will be a copper lode in depth, and that the lead will be confined to subordinate parts near the surface, and oblique branches, near the west boundary of the sett. On the opposite side of the river, the same lode has been worked for lead and copper some years ago. The general formation, the gossan, and the composition and structure of the rock, the mineral seen in the bottom of the adit, &c., fully warrant an immediate outlay. I was much pleased with the appearance *underground*, and it is my belief, with good management, you will have a very productive mine in this quarter, and I am surprised to find such a sett so long neglected. (Signed) EVAN HOPKINS.

Tavistock, Sept. 12, 1850.

A limited number of the shares only will be disposed of. For price, prospectuses, and particulars, apply to the Secretary, at the offices, 3, Walbrook-buildings, London.

Persons desiring further information hereon before investing, are referred to Evan Hopkins, Esq., C.E., F.G.S., Austinfriars, London.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Carr's West Hartley 16—Chester Main 14—Dean's Primrose 13—East Adair's Main 13—West Hartley 16—Wylam 13 6—Wall's-End Acorn Close 15 3—Gosforth 15—Gibson 14 9—Killingworth 14 9—Walker 15—Wharncliffe 15—Eden Main 15 3—Lambton Primrose 15 3—Belmont 15 6—Creswell 15 3—Hetton 16 6—Haswell 16 6—Jonassohn 14 9—Kepier Grange 15 9—Lambton 16—Russell's Hetton 16—Stewart's 16 3—Caradoc 15 6—Hartlepool 16 6—Kelloe 15 9—Thornley 15 9—Whitworth 13 6—Seymour Tees 14 9—South Durham 15—Tees 16 3—Aberaman Merthyr 19—Cowpen Hartley 16—Hartley 15 3—Snapethorpe 14 6.—Ships at market, 69; sold, 54.

WEDNESDAY.—Dean's Primrose 13—East Adair's Main 12 9—West Hartley 16—Wall's-End Harton 15—Lawson 14 9—Original Gibson 15—Eden Main 15 3—Braddyll 16—Hetton 16 3—Lambton 15 9—Russell's Hetton 15 9—Scarborough 15 6—Stewart's 16 6—Heugh Hall 15 6—Howdon 15 6—Hartlepool 16 3—Kelloe 16—South Hartlepool 15 9—South Kelloe 15 6—West Kelloe 15—Whitworth 14—South Durham 15—Tees 16 3—Hartley 15 3—Howard's West Hartley Netherton 15 6—Ships at market 73; sold 53.

FRIDAY.—East Adair's Main 13—North Percy Hardley 15—West Hartley 16 6—Wall's-End Gosforth 15 3—Morrison 15 3—Northumberland 14 9—Original Gibson 15 3—Eden Main 15 6—Belmont 15 6—Braddyll 15 9—Hetton 16 3—Haswell 16 3—Lambton 15 9—Stewart's 16 3—Caradoc 15 9—Hartlepool 16 3—Adelaide Tees 15 9—Maclean's Tees 15—St. Helen's Tees 15,—Ships at market, 28; sold, 24.

THE MINING COMPANY OF WALES.—*ON THE COST-BOOK PRINCIPLE.*

Capital £120,000, in shares of £5 each. Deposit £2 10s. per share.

DIRECTORS.

Sir FREDERICK GUSTAVUS FOWKE, Bart, Lowesly Hall, Leicestershire.
The Rev. WILLIAM JOHNS, A.M, Lincoln's Inn-fields, London.
G. K. HUXLEY, Esq., Regent's-park, London.
WINFIELD ATTENBOROUGH, Esq., Lincoln's Inn-fields, London.
JOHN JAMES COWARD, Esq., Lansdowne-crescent, Bath.
JAMES MORGAN, Esq., Mardyke-parade, Cork.
JAMES HOLDSWORTH, Esq., F.G.S. of Paris, &c., Aberystwith.

BANKERS.

The National Provincial Bank of England; the North and South Wales Bank; and the Royal British Bank.

SOLICITORS.

Messrs. Richard Thomas and Son, 3, Fen-court, Fenchurch-street, London; Griffith Jones Williams, Esq., Dolgelly; and William Griffith, Esq., Llanwrst.

SECRETARY.

St. Pierre Foley, C. and M.E., No. 24, Lincoln's Inn-fields, London.

PROSPECTUS.

This company is formed to develope the mineral wealth of Wales, and to work such mines and slate and slab quarries as have been or can be proved, after careful examination, to require only the application of judicious management and sufficent capital to render them safe and profitable modes of investment.

The company has already at command proved mines of copper, lead, silver, and other metals of important value. The ores are all rich in quality, and the veins or lodes, from which they are taken, are from 2 to 12 feet in breadth, bearing solid and well-mixed leaders of very high produce.

Two of the slate and slab quarries are open to good returns. On these several quarrymen may be put to work, at present, on bargains which, at the usual scale of charges, and at wholesale prices at the quarries and shipping ports, ensure 100 per cent. on outlay.

Some machinery will be required to put the GILVACH and CWM CIPRWTH copper mines and the BLAEN-Y-PENANT lead mines in a state of immediate return to high profits, particularly to prepare the poorer ores for market, and to unwater, and draw, from the deep works under horizontal levels. Also, one or two adit levels must be driven, to draw off the water from the upper works, which, when completed, will command a vast extent of rich ore-ground—such, as miners were able to raise, on a average, three tons of copper ore, of, the lowest sales-assay, 8½ per cent. for every fathom; and of lead ores, two tons, worth £11 per ton, at a working cost of £5 per fm. But in some of those bottoms, now open, the lodes, from the solidity and continuousness of their rich leaders, &c., are estimated worth £40 per fathom.

To work the RHOSSYD SLATE QUARRIES to that vast scale of produce they are capable of commanding, and for removal of this produce to market on that economical scale so necessary to be attended to, the present tunnel must be completed, and a horizontal and declining tramway laid down to meet the general traffic railway which sweeps along the base of this slate mountain to the shipping harbour of Port Madoc.

The SLAB QUARRIES require no machinery save for sawing and polishing. Water to work wheels for this purpose flows by these quarries.

The recommendation of the investment of capital in such mines and quarries as the above, so generally found in every division of the British empire, but more especially in the inexhaustible mining regions of Cornwall, and the Principality of Wales, in preference to investments in foreign speculations, as given through the pages of the *Mining Journal* so often and so forcibly—the vast advantage of mining over railway investments, illustrated by examples published in the same Journal of the 7th inst., and the satisfaction of having opportunities at all times of seeing examining, investigating, and, therefore, making quite certain that the property is in a state of progressive improvement, are worthy of consideration and attention; and, when well considered, it is to be expected that the true Californias for British investments, at all events, are to be found in our own beautiful, rich, and inexhaustible mountains; the mining districts of our peaceful and happy island-home, and in the departments of the various trades where industry and invigorating hopefulness cheer on the mechanic in his arduous and complicated labours.

Reports on the celebrated CWM SYMLOG, CONINOG, CASTLE DINAS, &c., silver-lead mines, and their deeds of transfer to the company, also reports on other mines and quarries at present in abeyance, will be placed before the directors and shareholders at their general meeting, to take place in their offices on Tuesday, the 1st day of October next, at One o'clock.

The general prospectus, including reports on the working mines and quarries at command, and the terms and conditions for the government of the company, may be obtained on application to the secretary, to whom letters for shares or allotment are requested to be addressed. ST. PIERRE FOLEY, C. and M.E., Sec.

Offices, Mining Company of Wales, 24, Lincoln's Inn-fields, London.

WEST PHŒNIX MINE, in the parishes of LINKINGHORNE AND ST. CLEER, NEAR LISKEARD, CORNWALL.

Divided into 1024 shares.—Deposit £2 per share.

This invaluable mine adjoins the Phœnix, whose riches as a copper and tin mine have lately proved enormous. The lodes in the West Phœnix sett are parallel, and not far from the south and West Caradon Mines—the shares of the former originally cost £5, and now selling at £290; the latter £20, and now selling at £95. The two great cross-courses of South and West Caradon pass through this sett. The lode in West Phœnix sett is large, varies from 10 to 20 feet wide, strong and well defined, is the same lode as the Phœnix, and carries precisely the same indications. It is also ascertained that a rich course of ore now exists in the 13 fathom level, 14 inches wide, and worth from £90 to £100 per fathom. The small sum of £1150 has been paid for the sett, which will be reimbursed.

The accompanying reports, from Evan Hopkins, Esq., 13, Austinfriars, London, and Capt. Samuel Seccombe, agent of the Phœnix Mine, demonstrate satisfactorily that the West Phœnix Mine is no speculation, but only requires capital to develope the riches which are positively known to be in this sett: 550 shares are only now issued to the public—the remainder of the 1024 are reserved to the owners of the mine, agreeably to the conditions of the Cost-book. The calls will not exceed £1 per share every two months, and it is estimated that before £5000 is expended the mine will be in rich and profitable working. A 30-inch cylinder steam-engine has already been purchased. The mine will be worked with the strictest economy, under the superintendence of the best practical agents. A large number of the shares are already taken up.

Respectable parties willing so secure a few of the remaining shares are instructed to make early application, accompanied with a reference, to the undernamed gentlemen:—John Symons Higgs, Esq., 2, Chichester-place, Exeter; Mr. John Stephens, St. Ive, Liskeard; Mr. Henry Vatcher, Exeter; Mr. John Spargo, Downgate, Stoke Climsland; Robert Sarjeant, Esq., Callington; Messrs. Sims and Co., Tavistock; Messrs. T. W. Flint and Co., Hull; Messrs. Johnstone, Bradley, and Walker, 1, St. Ann's Churchyard, Manchester; and J. S. Challoner, Esq., Bank-buildings, Newcastle.

OFFICES—14, *HIGH-STREET, EXETER.*

BANKERS—Messrs. Sanders and Co., Exeter; the Devon and Cornwall Banking Co., Exeter and Liskeard.

Report of Evan Hopkins, Esq.

This sett is situate at the south-west foot of the Cheesewring, in the Caradon mining district. The lodes passing through this property are the continuation of the Phœnix lodes westward; but as they leave the pale brown slate of the latter mine, and enter into the schorlaceous granite of the Withybrook, they become more productive of tin than copper. The granite is here traversed by many soft channels of ground, and also by large veins of schorl rock, which are more or less impregnated with tin. The lodes in this sett are intersected by the West Caradon cross-courses, and are of considerable magnitude, judging from the ancient superficial workings. Large quantities of rock, containing tin, may be extracted from this sett at a moderate depth, and probably a large amount of the black and grey copper ore, also on the east side of the main cross-course. This mine should be worked in very wide excavations, as I think the lode will be found in numerous branches; and a more economical mode of tin dressing should be introduced, than the ordinary method employed in the county of Cornwall—by these means it may be rendered a very valuable property. EVAN HOPKINS.

13, Austinfriars, London, June 28, 1850.

Report of Capt. Samuel Seccombe, of the Phœnix Mine.

In compliance with your request, I beg to furnish you with the following report of the West Phœnix, or Withybrook, Mine, which is situate to the west of, and adjoins the Phœnix Mine—the strata of both mines is granite. The West Phœnix, or Withybrook, Mine sett, contains several known lodes; the greater part of them has been worked on, more or less, for tin, by the ancients; one in particular has been more extensively worked on than the others, and which is a continuation of the principal lode in the Phœnix sett, and is precisely the same lode as the one proving so rich and productive for copper ore in that mine. It is a large strong lode, varying in size from 10 to upwards of 20 feet wide, and very regular in its dip or underlay, which is south. This lode has been laid open, and very extensively worked near your eastern boundary, to the depth of 40 fathoms, and in these workings yielded large returns of tin, which was found chiefly in the capels of the lode. The gossan part of the lode in these workings is large, and contains small portions of copper ore, and presenting good indications that the lode will, when laid open to a reasonable depth, be found to contain large deposits of copper ores of rich quality. I have been informed that the deepest workings on this lode in your sett are only 14 fms. below the surface, and at that shallow depth the lode was found to contain large quantities of rich tin, but could not be followed, having no machinery to keep the workings drained. These old workings are now full of water and stuff, and cannot be examined until cleared up; but, judging from what can be seen of this lode in the Phœnix sett, and their contiguity to each other, I am fully persuaded that if the West Phœnix, or Withybrook, Mine be effectually laid open, it will prove to be a lasting and profitable mine, and one that will not require a very large amount of capital, if judiciously laid out.

Liskeard, August 31, 1850. SAMUEL SECCOMBE.

Report of John Chapman, Working Miner.

I am a miner, and have been so all my days. I am now 80 years of age, and have always lived near the West Phœnix Mine. When I was young there was no steam-engines; and what is more, there is no water to drive a wheel near the West Phœnix Mine. The old men worked the mine down to the 13 fathom level by a horse engine, changing the horses every half-hour, by day and by night. At last the water came too strong for them, and they were obliged to abandon the mine. It was often tried after this, but they never could fork the water. All the miners in the parish are aware that there is a solid course of tin in the bottom of the mine, 14 inches wide, each side of the great cross-course, and I should say, according to the price of tin in these days, is worth from £90 to £100 per fathom. You have also large deposits of copper ore, and very rich in your sett, but in olden times copper was not looked after. It is the Phœnix lode you have in your sett, and my opinion is, you will have as good a mine for rich copper as the Phœnix. There is no difference in the nature of the lodes, they are the same. The Phœnix lode carries tin on the backs of the copper. JOHN CHAPMAN.

Linkinghorne, Sept. 10, 1850.

ANGLO-CALIFORNIAN GOLD MINING & DREDGING COMPANY.—*Provisionally Registered, pursuant to 7 and 8 Victoria.*

Capital £50,000, in 100,000 shares, of 10s. each.

The Board of Directors have much pleasure in announcing to the shareholders and the relatives of the miners, and others forming the first expedition on board the *John Calvin*, that despatches were received on the 16th inst. from Capt. Sir Henry Vere Huntley, R.N., in command of that expedition, dated "Falkland Islands, 23d April, 1850," stating that all parties were then in good health and spirits. The directors entertain no doubt that by this time the first expedition is at work at the River Calaveres, and that the second expedition, on board the *Diana*, has reached San Francisco. The present despatches will be published in a few days. LUKE WILLIAMS, Managing Director.

11, Adam-street, Adelphi, London, Sept. 20, 1850.

IMPORTANT DISCOVERY OF SILVER LEAD MINES, near BRISTOL.—The attention of persons interested in MINING PROPERTY is particularly directed to these valuable SILVER-LEAD MINES, recently discovered, and proved at considerable expense. It is proposed to FORM a COMPANY to WORK these MINES, to be called the ITCHINGTON HILL SILVER-LEAD MINING COMPANY, to be conducted on the Cost-book Principle, which, by Act of Parliament, exempts shareholders from any liability beyond the amount subscribed on their shares.

The sett, or grant, comprises about 80 acres, and is held direct from the Lord of the Manor, at 1-20th dues, or 5 per cent. on the produce, for a period of 21 years, from June, 1850. The situation is highly advantageous, being only 10 miles from Bristol, four from the Wickwar Station, on the Birmingham and Bristol Railway, and within 6 of the River Severn. Several very valuable lodes have been discovered, three of which have been explored to some extent, showing throughout indications of a highly metalliferous quality, which the reports will fully explain, and samples seen at the Company's offices.

From the peculiar situation of the lodes, and the natural character of the district, it is considered that expensive machinery will be unnecessary.

A considerable sum of money has been expended on the only required *speculative* outlay, the lead being actually discovered. Gossan, fluor-spar, sulphuret of barytes, and other indications of there being a largely productive mine, have been found, fully justifying the shareholders in anticipating a return on the capital invested, equal to the most valuable mine now working.

The mine is to be divided into 3072 shares; 2272 of these will be issued to the public, on which £3 per share is to be paid on signing the Cost-book; this sum the proprietors are fully assured will carry on the works effectually.

Various assays have been made, and the ore is found to be exceedingly rich in silver; one by Mr. Clements, of the Panther Lead-Works, Bristol, produced 55½ per cent. of lead, and 71 ozs. 1 dwt. of silver to the ton of ore, and valued by him at £19 10s. per ton, as produced at the mouth of the mine; another by Mr. Johnson, of 79, Hatton-garden, London, produced 12 cwts. of lead and 68 ozs. of silver to the ton. The price of lead orusually averages about £11 per ton.

Applications for shares to be made to Mr. S. J. Green, at the offices of the Company, No. 9, Hart-street, Bloomsbury-square, London, where specimens of the ore may be seen; and to Mr. Wray, Alveston, near Bristol, with whom the cost-book will lie for signature, or the convenience of country shareholders.

STIRLING'S PATENT YELLOW METALS—Adapted for SHEATHING, BOLT STAVES, BOLT NAILS, DECK NAILS, as reported by the late Mr. Owen, Supervisor of Metals to the Admiralty; also for PROPELLERS, FRAMEWORK SCREWS, PISTONS, CYLINDERS, COCKS (particularly where there is exposure to corrosion), RAILWAY CARRIAGE AXLE BEARINGS, and for all machinery subject to friction.

Price per lb. in castings..... 9*d.*
Ditto in forgings and rollings..... 8½*d.*

AGENTS.

Messrs. GARDEN & MACANDREW, 34, Dowgate-hill, London.
Messrs. JOHNSON, 166, Buchanan-street, Glasgow.

Applications for licenses and other information to be addressed to the undersigned, at Messrs. Garden and Macandrew's, No. 34, Dowgate-hill.

ALFRED BARRETT, Manager.

HUBBUCK'S PATENT WHITE ZINC PAINT combines ELEGANCE, DURABILITY, HEALTH, and ECONOMY. Unparalleled in whiteness. It is permanent for ages—unaffected by bilge water, sugar cargoes, vapour from cesspools, or the most noxious gases—equal to the finest coach panelling, without the use of varnish—favourable to the health of the painter, and to the occupants of apartments newly painted with it—covers so much work, that it becomes cheaper than the poisonous paints hitherto used. Each cask is stamped "HUBBUCK, London, Patent."

A circular, with full particulars, may be obtained from the principal dealers in paints, and at the works of Thos. Hubbuck and Son, opposite the London Docks.

IMPROVED WIRE ROPE.—The UNDERSIGNED, in tendering their best thanks for the liberal support they have hitherto received, respectfully solicit attention to the vast IMPROVEMENTS which new machinery and attention has enabled them to effect in the MANUFACTURE of ANDREW SMITH'S PATENT WIRE ROPE, more particularly his FLAT ROPE, which they can now produce of a description far superior to any previously offered to the public.

WILKINS & WEATHERLY.

Patent Wire Rope Works, 39, High-street, Wapping, London.

ASSAYING AND ANALYSIS.—ASSAYS and ANALYSES of MINERALS, METALS, SOILS, FURNACE, and all other MANUFACTURING PRODUCTS. INVENTORS and INTENDING PATENTEES assisted in PERFECTING any INVENTION involving an intimate knowledge of chemistry.

INSTRUCTION in all branches of ASSAYING, ANALYSIS, and METALLURGICAL and MANUFACTURING CHEMISTRY.

Communications to be addressed to Mr. Mitchell, 23, Hawley-road, Kentish Town.

CRAUFURD HOUSE,

CLASSICAL, MATHEMATICAL, & CHEMICAL SCHOOL, *MAIDENHEAD, BERKS.*

The importance of scientific knowledge being now generally felt, Mr. J. D. M. PEARCE, A.M., intends, in order to render his usual Chemical Course more complete, to erect a commodious laboratory, where his pupils may be able, after Christmas, to pursue those branches of analysis which are essential to the Agriculturist, Manufacturer, Engineer, and Emigrant; and he thus hopes to enhance the estimation in which his SCHOOL has been hitherto held.

Every branch of a polite and useful education is embraced—the Mathematics are thoroughly taught, and FRENCH is constantly spoken by the pupils, under the direction of an efficient native.—GERMAN is also spoken, and Singing taught in classes.—Every attention is paid to moral and religious culture, and the situation and arrangements of the establishment are such, that during four years it has been completely exempted from illness.—Prospectuses and references will be forwarded on application.

Chemical Referee—H. D. Pepper, Esq., Consulting Chemist to the Royal Polytechnic Institution, London.

GEOLOGY.—PERSONS wishing to become ACQUAINTED with this interesting BRANCH OF SCIENCE will find their STUDIES greatly FACILITATED by means of ELEMENTARY COLLECTIONS, which can be had at Two, Five, Ten, Twenty, or Fifty Guineas each, arranged and sold by Mr. TENNANT (Mineralogist to Her Majesty), 149, STRAND, London.

A Collection for Five Guineas, which will illustrate the recent works on Geology, contains 200 specimens, in a Mahogany Cabinet, with five trays—VIZ.:

MINERALS which are the components of rocks, or occasionally imbedded in them:—Quartz, Agate, Calcedony, Jasper, Garnet, Zeolite, Hornblende, Augite, Asbestus, Felspar, Mica, Talc, Tourmaline, Calcareous Spar, Fluor, Selenite, Baryta, Strontia, Salt, Sulphur, Plumbago, Bitumen, &c.

METALLIC ORES:—Iron, Manganese, Lead, Tin, Zinc, Copper, Antimony, Silver, Gold, Platina, &c.

ROCKS: Granite, Gneiss, Mica Slate, Clay Slate, Porphyry, Serpentine, Sandstones, Limestones, Basalt, Lavas, &c.

FOSSILS from the Llandeilo, Wenlock, Ludlow, Devonian, Carboniferous, Lias, Oolite Wealden Chalk, Plastic Clay, London Clay, and Crag Formations, &c.

Mr. TENNANT gives PRIVATE INSTRUCTION in MINERALOGY, with a view to FACILITATE the STUDY of GEOLOGY, and of the application of Mineral Substances in the Arts, illustrated by an extensive Collection of Specimens, Models, &c.

PROFESSIONAL LIFE ASSURANCE COMPANY.—ADMITTING ON EQUAL TERMS PERSONS OF EVERY CLASS AND DEGREE TO ALL ITS BENEFITS AND ADVANTAGES.

By the Deed of Settlement the directors have power to appropriate—

1. For the relief of aged and distressed parties assured for life, who have paid five years' premiums, their widows and orphans—one-tenth of the entire profits of the company.—2. For the relief of aged and distressed original proprietors, assured or not, their widows and orphans—one-tenth of the entire profits of the company, together with 5 per cent. per annum on the capital originally invested by them—thereby combining advantages for the living not to be found in any other existing company.

Incorporated by Act of Parliament.

Capital £250,000.

CHAIRMAN—Major HENRY STONES.
DEPUTY CHAIRMAN—JAMES ANDREW DURHAM, Esq.
With upwards of 1400 shareholders.

All policies indisputable and free of stamp duty.

Rates of premium extremely moderate.

No extra charge for going to or residing at (in time of peace) Australasia, Bermuda, Madeira, Cape of Good Hope, and the British North American Colonies.

Medical men in all cases remunerated for their report.

Assurances granted against paralysis, blindness, accidents, insanity, and every other affliction, bodily and mental, at moderate rates.

A liberal commission allowed to agents.

Annual premium for assuring £100, namely:—

Age—20	£1	10	9	Age—40	£2	13	6
30	1	19	6	50	3	18	6

Prospectuses, with tables and fullest information, may be had at the offices of the company, or of any of their agents.—Applications for agencies requested.

EDWARD BAYLIS, Resident Manager and Actuary.

Offices, 76, Cheapside, London.

INSURANCE AGAINST RAILWAY ACCIDENTS BY THE RAILWAY PASSENGERS' ASSURANCE COMPANY.

Empowered by Act of Parliament, 12 and 13 Victoria, cap. 40.

Capital—ONE MILLION.

CHAIRMAN—JOHN DEAN PAUL, Esq.
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£1000 in a first-class carriage, at a premium of ..... 3*d.*
£500 in a second-class ditto ditto ..... 2*d.*
£200 in a third-class ditto ditto ..... 1*d.*

For the convenience of frequent travellers, Periodical Tickets are also issued at the Railway Stations by the provincial agents, and at the Company's offices, 3, Old Broad-street, London, on the following terms:—

To insure £1000 for 12 months, at a premium of ..... 20*s.*
ditto £200 ditto ditto ..... 5*s.*

With the option of travelling in any class carriage, and on any railway in the kingdom

The total amount insured by any of the above tickets is payable in the event of death by railway accident, and proportionate compensation afforded in cases of personal injury.

N.B.—In the recent serious accident at Liverpool, 12 persons out of the large number who were injured were insured with this Company, and have since received compensation for the loss of time and medical expenses; and by that on the Edinburgh and Glasgow Railway, on the 1st August, the Company have already received notice of injuries to several insured parties. ALEXANDER BEATTIE, Secretary.

London: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their offices, No. 26, FLEET-STREET, where all communications are requested to be addressed. [*September 21, 1850.*